Lectures
ON
CHRONIC HYDROCEPHALUS.

Delivered at the Hospital for Sick Children, May, 1870.

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LECTURE II.—PART II.
SYMPTOMS AND CLINICAL HISTORY OF CHRONIC HYDROCEPHALUS.

THE following cases illustrate the symptoms and progress, and finally the pathology, of the disease.

Chronic Hydrocephalus associated with Rickets; tapping; death from sloughing of the scalp; post-mortem examination.—James R——, a child six months old, was brought to me at the Children's Hospital on October 20th, 1864, with a head large enough for a giant. The disproportion between the head and the body reminded one of the political caricatures which used to be common, in which a diminutive body was attached to an enormous head.

The head was nearly globular in shape, and measured thirty inches round. It was very imperfectly ossified, feeling generally soft and membranous; small plates of bone being scattered in an insular manner. It fluctuated very

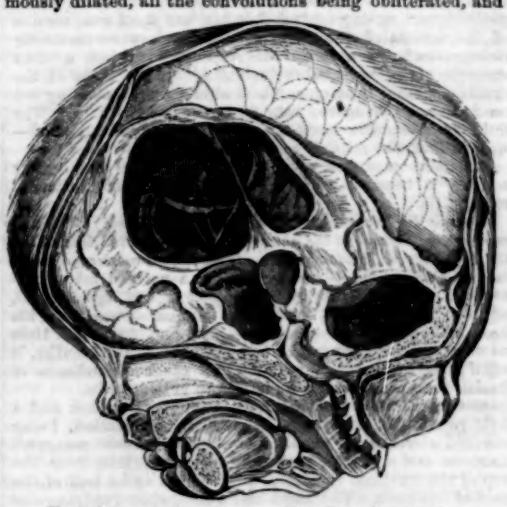
distinctly from side to side. The face was disproportionately small. The orbital plates were depressed, and the eyeballs pressed downwards so that the pupils were half hidden by the lower lids. The pupils were dilated, and did not change with light. Large veins ramified on each side of the head, in continuity with the temporal veins.

The child looked plump and well nourished. It was still kept at the breast, and sucked well, though it could not lift its head.

It was stated that the child had been born naturally, though after a slow labour, owing, as was supposed, to the head being larger than usual. After birth the head gradually increased; and at the age of five weeks it was found to measure 19 in. round. The increase continued without any obvious disturbance in the general health until the date of the preceding note. There had been no convulsive attacks, nor any squinting. The bowels always acted naturally. The child was blind, but had the amount of intelligence proper to its age. The hearing was perfect; it recognised its mother's voice. The iodides of iron and potassium and cod-liver oil were given without any beneficial result, and the head continued to increase until it attained the circumference of 31 in.

The child was now sent as an in-patient to St. George's Hospital, where I was able to watch his progress, though he was no longer under my medical care. Shortly after his admission the head was tapped by the side of the longitudinal sinus, twenty-two ounces of perfectly limpid fluid withdrawn, and an elastic bandage wound in many circumvolutions round the head. No material change was observed until, at the end of three weeks, the bandage had to be taken off and replaced. It was then considerably tightened, and was presently found to cause such pressure upon the contents of the cranium as to occasion frequent vomiting, with pallor of the countenance, and approaching coma. The bandage was removed, and these symptoms at once subsided. The pressure, however, left red marks upon the head, which were succeeded by sloughing of the soft parts, and exposure of the skull. The child then quietly sank, and died in sleep, without any fresh symptom. It lived to the age of nine months.

Post-mortem examination.—The body was well nourished. The head was of the enormous size already described. The fontanelles were widely open. There were extensive sloughs on the head, one of which exposed a considerable surface of the right parietal bone. Over the left side the cuticle was loose and the corium wet. I managed to get possession of the head, and made a vertical section so as to display the relations of the brain. The section is represented in the accompanying woodcut. The fluid was in the interior of the brain, being chiefly contained in the lateral ventricles, which were enormously dilated, all the convolutions being obliterated, and



The dark space in the centre crossed by a filament represents the foramen of Monro, through which is seen the interior of the ventricle. The surface between this and the upper and fore parts of the skull is the extended inner wall of the cerebral hemisphere. The cerebellum is seen in its natural situation, somewhat flattened against the occipital bone.

the brain-substance reduced to a thin layer, which lined the skull, in some places no thicker than paper, in other parts one-eighth of an inch in thickness; this was everywhere in contact with the cranial walls. The foramen of Monro was stretched to a diameter of three inches and a half; it was not quite circular in shape, and was crossed by filaments of pia mater. From the edges of this opening two thin laminæ of cerebral tissue passed vertically, and formed the internal wall of each lateral ventricle. The third ventricle was distended in a corresponding manner, and was continuous with the lateral ventricles, so that it was scarcely possible to say where one began and the other ended—such was the dilatation of the passages between the two. Besides these spaces, there was a sort of extra ventricle formed by a separation of the tentorium from the upper surface of the cerebellum, this cavity being in free communication with each lateral ventricle by a large round opening on the outer part of the transverse fissure on either side. The fourth

ventricle, and the passage leading thence to the third, were perfectly natural; it was found, however, that the arachnoid between the cerebellum and the spine was somewhat thickened, as was the arachnoid membrane generally about the base of the brain. The cerebral substance was natural in texture. The cavities containing the fluid were mostly smooth and natural in surface, but in one or two places a slight granular sprinkling was noticed. The fluid which was contained was so slightly tinged with albumen that it could only be detected as a minute trace by careful examination. The fluid had the appearance of pure water. The longitudinal and lateral sinuses contained soft reddish coagulum, slightly adherent to the walls. The lining membrane was natural. The coagula were obviously ante-mortem, but were of no great standing. The left middle meningeal artery was obstructed by similar clot. The jugular veins were natural. The ossification of the skull was very imperfect; a wide space between the parietal bones was enclosed only by membrane. The anterior and posterior fontanelles were very large. Here and there islands of bone were deposited upon the membrane. The orbital plates were depressed. The ends of the ribs were much enlarged by rickets, and were easily cut with a knife. The thoracic viscera were natural. The cavities of the heart were blood-stained; both ventricles slightly contracted. The kidneys were congested; the liver natural. All the incisor teeth had been cut except one.

In this case it will be observed that, notwithstanding the great enlargement of the head, there was a total absence of cerebral symptoms. Excepting what resulted from the bandage there was clearly no abnormal pressure upon the brain. The disturbance of the orbital nerves depended probably not on any central changes, but upon compression of the trunks of the nerves. The bones were distinctly rickety, and the case in all respects furnished a clear example of hydrocephalus depending on the state of the cranium, rather than on cerebral alteration; depending not on increased pressure, but diminished resistance. The fluid, as in similar cases, was nearly free from albumen—was, in fact, the natural cerebro-spinal fluid.

The next case was almost exactly similar, until after a time it became complicated by the supervention of meningitis.

Chronic Hydrocephalus associated with Rickets; tapping; meningitis; change in the character of the cerebral fluid under the influence of inflammation; death; post-mortem appearances.—Charles P—— was born after a natural labour, attended, however, by an excessive discharge of liquor amnii, and was brought up at the breast. When six weeks old his head showed a disproportionate size, and from this time until he was brought here, at the age of seven months, it continued to increase, without any other disturbance of health than that latterly he had been getting thin.

At this time the head measured twenty-six inches and a half round. It was very deficient in ossification, being covered above by a membranous space, which measured thirteen and a quarter inches by seven, reaching from the top of the forehead to within three inches and a half of the root of the neck. The head had a somewhat quadrangular outline, from the protrusion of the frontal and parietal eminences. The orbital plates were much depressed, the eyeballs lowered, the pupils partially veiled by the lower lids. There was slight internal strabismus, and the eyes had the peculiar oscillations so frequent in hydrocephalus. It was not observed that sight was defective.

The body and limbs were rickety, the wrists and ankles were large, the limbs bent, the chest compressed laterally, and the ribs beaded. The child sucked well, being still at the breast. He had two incisor teeth. There had been no convulsion, rigidity of the limbs, or paralysis. General and special sensation were natural, as far as could be made out.

The child was under my care alternately in St. George's Hospital and here. Elastic pressure was applied, and cod-liver oil and iron, with diuretics, were given; but the head continued to increase, and it was determined to draw off small quantities of the fluid with a trocar. This was done six times in the space of four months, the total amount of 33½ oz. of fluid being removed. The treatment in other respects remained the same. The head was soon reduced in circumference by nearly two inches; but it was found that, after each tapping, the fluid was reproduced at an increasing rate; tension of the head, with restlessness and occasional drowsiness, making a repetition of the operation a matter of necessity. The quantity of fluid withdrawn each time varied from 2½ oz. to 9 oz. Its escape was always accompanied by a failing pulse and signs of depression, which forbade the abstraction of a larger quantity. The changes which the fluid underwent were characteristic of the supervention of meningitis. At the first tapping the fluid withdrawn was perfectly clear, colourless, and limpid. It gave a scarcely appreciable cloudiness with heat and acid, showing that albumen was almost absent. The specific gravity was 1004·85. The fluid after the last repetition of the operation was turbid and yellow, it had a specific gravity of 1010·0, and gave an albuminous clot equal to half its bulk. Further evidence of meningitis was shortly apparent in the general state of the child; the restlessness and drowsiness increased; and four days after the last tapping general convulsions occurred. These were frequently repeated, affecting chiefly the left side, the pulse became quick and weak, and he sank (eight days after the convulsions commenced) at the age of eleven months.

The post-mortem examination gave, as was anticipated, evidence of meningitis. The brain was everywhere in contact with, but not adherent to, the dura mater, being spread out into a bag, the walls of which varied in thickness from a quarter to the eighth of an inch. Scarcely any trace of sulci or convolutions remained; the great divisions marked by the falx and tentorium retaining their position. The brain was generally softer than natural, the septum lucidum and fornix being diffluent. Eighty-eight ounces of fluid were collected from the ventricular cavity of the cerebrum. It had a dirty, brownish-green colour, the lower portion being more opaque than that which first flowed, the sediment consisting of thick, yellow matter, which had the obvious and microscopic characters of pus. The fluid which was collected had a specific gravity of 1011·8, and was so albuminous as to become gelatinous with heat and acid. The lining of the ventricles was somewhat rough and injected. The cerebellum was covered, particularly at its lower part and on the right side (the side on which he generally lay during life), with a thick layer of pus. The sinuses of the dura mater were full of post-mortem coagulum, but in no respect unnatural. The fourth ventricle and its outlet were natural.

This case is another example of hydrocephalus depending upon rickets. It is not improbable that at an early period the disease might have been arrested. The supervention of meningitis is one of the dangers of tapping. The inflammatory process was indicated by the gradual change in the character of the fluid from aqueous to albuminous.

The pathological signification of the character of the ventricular fluid is well illustrated. It has been stated that when the ventricular fluid is of inflammatory origin, it is albuminous, and I can by my own observations testify to the accuracy of the remark. Under such circumstances I have found the fluid to yield a coagulum of half its bulk. I have not had an opportunity of testing the fluid in any case of hydrocephalus from venous obstruction: these cases are comparatively rare. In the most common form of the disease, that depending, as I have endeavoured to show, upon relaxation of the cranium, the fluid does not materially differ from the natural cerebro-spinal fluid; it is mainly aqueous, containing only a trace of albumen. The character of the fluid, therefore, could we often obtain it during life, would assist us materially in ascertaining the character of the disease.

ON THE RELATIVE POWERS OF VARIOUS SUBSTANCES IN THE DESTRUCTION OF MICROSCOPIC ORGANISMS.

BY JOHN DOUGALL, M.B. C.M. GLAS.

AT the present time, when so much is being said for and against the "germ theory" of disease, and so great difference of opinion prevails regarding the cause to which the unquestionable good effects of carbolic acid in surgery are to be attributed—some holding that it acts chemically, others that it acts antiseptically, and some that as a curative agent it is worthless,—perhaps the results of a few

experiments, made with the view of testing the destructive power of carbolic acid on minute organisms as compared with that of several other substances, most of which are active poisons, may be of some interest to the profession.

Independent, however, of any bearing which they may have on the so-called "antiseptic system," they show besides the actual and relative susceptibilities of the various organisms to the poisonous influence of the substances enumerated. Many other chemical preparations, doubtlessly highly inimical to animalcular vitality in small quantities, might have been selected for trial; but those chosen, being chiefly the more common and active poisons, were therefore preferred.

The number of genera of organisms operated on is undoubtedly small; still they represent a number of facts, forming a quota of the truth. The entomostraca, though not microscopic, are yet very small in size, being about 1-50th of an inch in their short diameter. These were added to the list from their being easily procured, and also for the purpose of comparing their susceptibility to the action of the poisons with that of the other organisms. A considerable number of them happened to be pregnant females, having their purple ova-sacs attached externally at the free abdominal extremity, which were soon shed or aborted under the influence of the poison. The species was exclusively *Cyclops quadricornis* (Müller), taken in fresh water. The infusoria were obtained from water in which hay had been steeped for two weeks. The spermatozoa were human, and regarding these it may be stated that it has been ascertained by Kölliker, quoted in the "Cyclopædia of Natural History," "that the over-dilution of the semen with water causes the filaments to form loops, and their motions to cease, and that they are revivified by the addition of such substances as albumen, syrup, &c." My observations on the spermatozoa have been such as to make me accept the first part of this statement with some qualification. Probably were the semen very largely diluted with water, the phenomena would be such as described by Kölliker; but it has been found that two parts of water added to one part of the spermatic fluid has only the effect of curtailing the vivacity of the filaments, considerable motion being still quite perceptible. In regard to the latter part of Kölliker's statement—namely, "that the filaments can be revivified by the addition of albumen, syrup, &c., when rendered motionless in dilute aqueous solutions," it was understood that he meant *solutions which are very dilute*; and as most of the substances which have been stated as causing the death of the filaments may be considered as *very dilute*, it was assumed that the cessation of motion might be the result of such great dilution, and consequently that, according to Kölliker, the addition of syrup or albumen would prove whether the filaments were merely motionless or actually dead. In each case, then, after it was seen that they had ceased to move, an attempt at resuscitation was made by adding a little syrup or albumen, and it may be stated that in no case was motion renewed.

A uniform method in bringing the various poisonous menstrua in contact with the organisms was strictly observed. As far as practicable, a part of the poisonous solution, equal to the amount of fluid on the slide, was in every case added. It was found that when two drops of the former were added to one drop of the latter, the effect was much more marked than when equal parts were brought in contact. This was of course to be expected, two drops containing double the quantity of poison in one drop, though the degree of dilution was the same.

It will be observed in the subjoined table that the spermatic filaments are capable of existing in a very concentrated solution of common salt (1-10th). In more dilute solutions, as 1-100th to 1-250th, their movements are greatly accelerated. I was not aware, when experimenting with this substance, that the same effects had been observed by Quatrefages, Newport, and others.* It will be observed, also, that the various poisons were allowed to act on the organisms for a uniform period of time—i. e., the spermatic filaments were kept immersed for fifteen minutes in every case; so also were the entomostraca; and though the regularity of the data is disturbed by the infusoria having been allowed only two minutes' immersion, still the relative effects of the various solutions in a given time is shown: the object being to ascertain, in the case of each distinctive poison applied separately to the different genera of organisms, the exact quantity requisite to destroy them in a definite time.

Table showing the quantity of various substances in aqueous solution required to kill, in a given time, Spermatozoa, Infusoria, and Entomostraca.

Substance.	Spermatozoa.	Infusoria.	Entomostraca.	Average.	Remarks.
Hydrochlorate of strychnia ...	1-30000 ...	1-450 ...	1-8000 ...	1-12816·6 ...	The movements of the infusoria greatly increased at first.
Hydrochlorate of arsenic ...	1-18000 ...	1-8000 ...	1-2000 ...	1-9333·3	
Nitric acid	1-18000 ...	1-1500 ...	1-300 ...	1-6600	
Hydrochloric acid	1-15000 ...	1-2000 ...	1-300 ...	1-5766·6	
Sulphuric acid	1-15000 ...	1-1500 ...	1-500 ...	1-5666·6	
Alcohol	1-12500 ...	1-750 ...	1-2000 ...	1-5083·3 ...	Infus. when dying make small circles.
Bichloride of mercury	1-7000 ...	1-6000 ...	1-1500 ...	1-4833·3 ...	An entomostraca lived for 15 minutes in 1-2000, and was removed quite lively.
Nitrate of silver	1-6500 ...	1-6000 ...	1-2000 ...	1-4833·3	
Acetic acid (*fort.*)	1-10000 ...	1-500 ...	1-50 ...	1-3516·6	
Oxalic acid	1-7500 ...	1-1500 ...	1-1500 ...	1-3500	
Chloride of zinc...	1-7500 ...	1-600 ...	1-500 ...	1-2866·6	
Picric acid	1-3700 ...	1-450 ...	1-2000 ...	1-2050	
Tartrate of antimony	1-4000 ...	1-450 ...	1-500 ...	1-1650 ...	Infusoria when dying make short and sudden darts.
Hydrocyanic acid	1-5000 ...	1-250 ...	1-500 ...	1-1583·3	
Carbolic acid	1-1000 ...	1-750 ...	1-1500 ...	1-1083·3	
Camphor	1-2500 ...	1-400 ...	1-250 ...	1-1050	
Tincture of iodine	1-500 ...	1-400 ...	1-500 ...	1-466·6 ...	Entomostraca struggle violently from the time they are put in the solution.
Solution of chloride of lime ...	1-500 ...	1-300 ...	1-250 ...	1-350	
Common salt	1-10 ...	1-50 ...	1-100 ...	1-53·3 ...	Spermatozoa are rendered very lively by weaker solutions of common salt.
	Average.	Average.	Average.		
	1-7079·47...	1-1676·3...	1-1165·79		
	Time 15 min.	Time 2 m.	Time 15 m.		

It will be seen in the above table, by comparing the averages at the foot of each column, that the organisms are arranged in the order of their sensitiveness to the action of the various solutions.

The chemical preparations are also tabulated consecutively, with their toxicological power, the strongest being placed at the top of the table—seen by comparing the averages in the fourth column.

The following facts may be gleaned from the table:—That the inorganic acids are highly deleterious to minute organisms; the first five, or the five weakest, solutions on the list, being either simply impregnated with these, or having one as a component part—as in the hydrochlorate of strychnia and the hydrochlorate of arsenic,—where they were required to render the base soluble. Very probably, however, the intensely poisonous properties, which place these two substances at the top of the table, are to be attributed to the conjoined action of the acid and the base; as hydrochloric acid *per se*, in water, acts with a power equal to only half that of the first, and very considerably less than that of the second. Of the organic acids used, it will be seen that the "carbolic" is placed lowest. From the interest which this substance has created of late I was most scru-

* Cyclopædia of Natural History, art. "Reproduction of Plants and Animals," where it is also stated that most of the alkaline and earthy salts act similarly.

pulously careful in determining its poisonous action in relation to the other bodies, and, being somewhat a partisan in favour of its greatly reputed germicidal powers, felt somewhat disappointed when compelled to place it so far down in the table. This result indicates either that there are preparations vastly superior to carbolic acid in surgery—i. e., those above it in the table,—or that its action on the tissues is special, probably chemical. It might be well to prove this point, by giving some of the other more active solutions a trial in surgical cases. There could be no danger from absorption, when used so very dilute. Then the inorganic acids, *per se*, might be applied much stronger than they appear in the table. Even alcohol, as shown in the average column, acts with four times the power of carbolic acid; and in a paper published in the *Glasgow Medical Journal*, Feb. 1870, entitled "Whisky as an Antiseptic Dressing in Surgery," it is stated to be a popular remedy for wounds &c., both in man and animals, in the western Highlands of Scotland, where the writer applies it to wounds and abscesses in the same manner as carbolic acid, and with equal success. It will be seen also that bichloride of mercury and nitrate of silver are equal in toxic power. Hydrocyanic acid and tincture of iodine are much lower than might naturally be anticipated, and acetic acid much higher.

The above results were obtained after very numerous trials of the different solutions of various degrees of strength. Previous to the experiments being begun the solutions were all prepared of the uniform strength of 1 part in 500 of water; and the effect of such solution having been ascertained on the organisms, it was further diluted or strengthened till a point was gained in which only a faint movement could be seen in an occasional organism in the given period, and in the case of the entomostraca, only one specimen of which was used at a time, till it was quite dead.

Paisley-road, Glasgow, July, 1870.

AFFECTIONS OF THE THROAT AND LARYNX.

BY A. T. NORTON, F.R.C.S.,

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(*Concluded from page* 153.)

Inflammation and Congestion of true Vocal Cords.

IN seven cases one or both true vocal cords were discoloured, without any affection of the rest of the larynx. Of these seven, only one had previously suffered from syphilis. In all the voice was altered; in five cases there was hoarseness, and in two there was entire aphonia. Cough of a dry character was present in some instances, but not in all.

These cases were treated by the application of nitrate of silver solution to the cords, and, in addition to this, the iodine ointment or tincture of iodine was externally applied every day. A purge likewise was administered.

E. A——, aged seventeen, had suffered from entire aphonia for four months. Quinine and iron was administered; nitrate of silver solution was applied, and creasote inhalation was ordered. She remained under treatment one month.

In the case of Agnes T——, who had previously suffered from syphilitic cutaneous eruptions, a mixture of iodide of potassium and perchloride of mercury was prescribed, and the nitrate of silver solution was applied. She remained under treatment three weeks. The other cases were under treatment, on an average, about a fortnight.

Ulcers on Vocal Cords.

Of the four cases suffering from ulceration within the larynx, either on the true or false cords, three were males, and one was a female. No pain occurred in these cases; but in one, in whom the ulceration extended from the right false cord backwards to the arytenoid cartilage, swallowing was productive of a sharp pricking pain, which extended into both ears. In all there was more or less constant cough of a dry character; the voice was altered, either soft and whispering or rough and hoarse. In one case the symptoms assumed the character of phthisis pulmonalis. The man became emaciated, his appetite failed, he could not speak, and he could not attend to his duties.

The treatment consisted of warm inhalations and of topical stimulants—nitrate of silver, chloride of zinc, and simple glycerine; of blisters to the neck, and of internal treatment, either of iodide of potassium or of tonics.

H. R——, a youth nineteen years of age, pale and emaciated, had been losing flesh for several months, and had been suffering from a cough for about a year and a half. He frequently spat blood, but had never thrown up any large quantity at a time. His voice was of a hoarse, ringing character. Swallowing produced no pain, but coughing was accompanied by a soreness in the throat. He complained of great exhaustion, and was too weak to attend to his vocation, which was that of a carpenter. An examination with the laryngoscope showed the right true vocal cord reddened and superficially ulcerated to nearly the whole of its extent. The right false cord was also inflamed, and upon it was situated a deep excavated ulcer, of elongated form. The patient denied that he had had venereal disease in any form, though the character of the ulcer led to the belief that it was specific. Iodide of potassium was ordered, and the ulcer on the false cord was touched with solid nitrate of silver. Inhalations were also ordered. Little alteration took place for some time, but under a continuation of the medicine, and a change of the local application from nitrate of silver to a solution of the chloride of zinc, the disease was entirely cured in two months.

Growths on the Vocal Cords.

Of the two cases that occurred with this abnormality both were the subjects of syphilis, and in both the only symptom was a spasmodic raucous voice.

T. M——, aged twenty-eight, a porter, had suffered from syphilis for eight years. Hoarseness had been increasing for two years. The laryngoscope exhibited a warty growth at the base of the left vocal cord, about the size of a No. 3 shot. Iodide of potassium was ordered, and a solution of nitrate of silver (two drachms to the ounce) was applied to the growth. After seven applications the growth disappeared. The voice now became nearly normal, though still slightly hoarse. A fortnight from this time he was discharged cured.

E. C—— had suffered from hoarse, spasmodic voice for six months. It was increasing. With the laryngoscope it was found that two growths had become developed upon the left vocal cord, one at the base and one about the centre. A similar treatment was adopted in this case. After five weeks the growths had disappeared; but both the true cords were greatly hypertrophied; and at the present time there is an evident protrusion of the inner margin of the left vocal cord near the base.

Hypertrophy of Cords.

In three cases the true cords were considerably thickened. They were normally white, and the rest of the larynx was unaffected. Two were the subjects of syphilitic disease; and the only symptom was the alteration of the voice, which was of a sharp, whispering, metallic character. The treatment was iodide of potassium. At each visit the cords were brushed with a solution of chloride of zinc to stimulate absorption.

Partial Paralysis of True Vocal Cords.

In two cases in which aphonia existed there was no discoloration of the cords, nor abnormality of the larynx. The true cords were seen not to move during an attempt to articulate; but the whispering voice was produced by approximation of the false cords. Both cases were the subjects of rheumatism. Galvanism was applied with good effect. A mixture of bicarbonate of potash was prescribed. The cases attended, one for three weeks, and one for a month.

Hysterical Aphonia.

Of the four women in whom hysterical aphonia occurred, two were married and two were single. In two there was also globulus hystericus. There was no abnormal condition of the larynx. They were treated with tincture of assafœtida and camphor-water. One of these cases (H. F——, aged twenty-five, unmarried), remained under treatment for over five months. Galvanism was frequently used.

Anæmia of Larynx, with Aphonia.

In two cases, hoarseness, with intervals of entire aphonia, existed, without any laryngeal disease. There was, however, general anæmia, and this was especially marked in the larynx. In one case, a single woman, aged twenty-seven, who suffered from amenorrhœa at the same time, the compound iron mixture was prescribed. In the second case sulphate of iron (two grains to the dose) was given. The first case was under treatment for three weeks, and the second for a fortnight.

Affections of the Epiglottis.

Inflammation.—The epiglottis was most commonly inflamed in cases in which there was inflammation of the surrounding structures, as in acute tonsillitis or laryngitis. In no case was acute inflammation of the epiglottis found to exist alone.

Ulceration of the epiglottis occurred in four cases. In one case it was coexistent with ulcers upon the soft palate and on the base of the tongue. In a second case it was accompanied by ulcers at the base of the tongue; and in the third and fourth cases the epiglottis alone was affected. In one of these there had been at a previous period general syphilitic ulceration of the tonsils, pharynx, and palate, with entire loss of the uvula. It may be as well to mention that in this case the loss of the uvula was for a long time followed by the passage of the food and fluids into the nares during deglutition; and at the present time fluids occasionally find their way into these spaces. The treatment adopted was the application to the ulcer of the solid nitrate of silver, which, as the disease gave way, was replaced by a solution of the same (at first one drachm to the ounce, and afterwards one scruple to the ounce). Improvement commenced after one or two applications, and progressed rapidly. Two of these cases were the subjects of syphilis, and in both the iodide of potassium was administered.

Wimpole-street, Cavendish-square, June, 1870.

PALPITATION: ITS DIAGNOSTIC VALUE.

BY J. MILNER FOTHERGILL, M.D.,

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THOUGH the oldest known symptom of heart disorder, palpitation has never had any exact diagnostic value attached to it. It has been hitherto regarded as excited or increased action of the heart, without any reference to its causation. It may be fairly questioned whether this even is in accordance with fact. From a careful consideration of the subject for some time past, I have been led to regard it as solely diagnostic of a disturbance of the balance which exists between the blood to be driven by the heart and the power to drive it; and that, too, in the direction of cardiac inability. This impression is constantly growing stronger. The idea is founded not only on its exciting causes, but also on the known action of the remedies which enjoy the greatest reputation for efficacy in allaying it. It appears to be the first evidence of over-taxation of the heart, of which irregularity (in time, not in volume—that rather belongs to mitral regurgitation) is the next, and intermittency the most serious.* This idea may appear more or less novel, but probably less. Having been for some time past engaged in an investigation into the mode and manner of production and action of heart disorder and disease, it may not be presumptuous to offer my conclusions, and why I have formed them, to the notice of the profession.

Palpitation, then, to commence broadly, is usually associated with exertion, nervous excitement, or general exhaustion, no matter how produced. It can be no subject for doubt that many persons know palpitation only after excitement in a heart structurally sound, others after exertion in a heart structurally diseased. But in each it may be the chief burden of complaint; indeed, in the person with the sound heart it may be more severe and alarming. Though connected with such apparently different conditions, its diagnostic value is unaltered. It has been regarded as over-action: the truth seems to be, rather, that action is more apparent. The extreme of healthy action is utter unconsciousness that such action exists. The evidence of that action, then, is scarcely to be regarded as an evidence of power. Though hypertrophy and palpitation are often found together, palpitation is much more intimately associated with dilatation. Hypertrophy evidences that there is some disturbing force in operation by which increased action and power on the part of the heart are called for; otherwise hypertrophy could not exist. We are unacquainted with any growth of muscular fibre which is not occasioned by increase of demand upon it. In the silently acting organic muscular fibre this is most apparent. Thus it occurs in the stomach before a pylorus narrowed by scirrhus; in the bowel in the presence of a chronic obstruction; in the bladder from prostatic change or stricture. So in the heart we have hypertrophy from the demand for it, and can no more conceive a spontaneous uncalled-for hypertrophy of muscular fibre in the heart than anywhere else. Palpitation evidences the demand, and indicates the compensation to be still incomplete. But it is connected with the demand on the heart; not called forth by the increase of muscular power. Of old, hypertrophy was regarded as a disease, and was met by bleeding and starvation. It was regarded as an abnormal development of power, and, as such, was attacked as a disease. We now know that it is a compensatory growth; and, consequently, the more perfect the hypertrophy the less does the patient or anyone else hear or know of it. So palpitation, which has been regarded as over-action, and treated accordingly, will soon be seen to be an evidence of the muscular power being taxed or wanting, and that it is connected with the want of power, not the excess of it. Palpitation is, like the pain in the distended bladder, an evidence that the muscular action is called on; but it is not that it is too strong for the work, but that it is unequal to it. In dilatation, with or without valvular disease, is palpitation most common in the structurally altered heart. It cannot, then, be an evidence of over-action, as the old theory ran; because then the palpitation should be absent on exertion and present in quietude. Now we all know that such is not the case. In this condition effort calls out palpitation, as occasioning an addition to the heart's labour. The muscles cross the arteries and impede the flow of the blood. Wardrop even called this the musculo-cardiac function, and thought it beneficial by filling the heart's chambers with blood, which it most unquestionably does. But in dilatation the essence of the disease is that the ventricles are always too full, and never completely emptied. The ventricle, no longer able to close completely in systole, is partially full to commence with on diastole, the distended auricle and veins drive in the blood under increased pressure, the fibres become over-stretched, distension results, and contraction is impaired. "Dilatation of the heart is a purely mechanical effect of over-distension." Palpitation, then, ought, on the old theory, to act as a curative agent in dilatation, and ought consistently to occur when there is no great call on the heart—that is, during quietude, when the demand is the least. But notoriously it occurs in exertion, when the impeded flow of blood would act against this over-action. This creed is untenable, and may be left without further comment to the decision of my readers. In the structurally diseased heart effort is the common cause of palpitation. A species of balance has been struck between the power of the heart and the work to be performed; the system has lowered to meet the heart; a leveling-down process has gone on; and effort, by disturbing this balance, evokes palpitation. Palpitation evidences that the muscular fibres are making an effort to meet the demand on them; not that they are inordinately successful. It is laboriousness, not excessive power, that is indicated by palpitation. When the heart is acting excitedly, as in exertion, it is only when that exertion has been excessive that anything like palpitation is evoked. Take a "striker" (a fore-hammerman), for instance, after a "heat." All his muscular energy is called out to accomplish all that it is possible to do before the metal cools. Take him at the finish, with the perspiration rolling down, panting, exhausted for the moment, and you find his heart palpitating, so violent is its action from the recent strain upon it. But its effect is visible on the pulse, which is full and bounding, and in strict proportion to the action of the

* It is the intention of the writer to issue other papers on the subjects of Irregularity (i.e., loss of rhythm) and Intermittency (i.e., loss of one or several beats from either absence of ventricular contraction or a contraction so feeble as to be imperceptible), from time to time, as leisure will permit.

heart; and there it differs from palpitation. In excitement a similar violent action is seen sometimes, but the arterial pulse is again affected and reveals the excitement. But these conditions are not true palpitation. According to the old theory, palpitation ought to occur to the striker when unemployed, as the heart then could not have enough to do. Of course some readers may say, "And so it does." Certainly in time it does, as it does in anyone else where violent calls on the heart are inducing structural change. According to the old theory, the heart, accustomed to exertion, ought to palpitate whenever a lessened call on it left it with some spare power, which is let off harmlessly as palpitation. So also in exertion the heart's action ought to be feebler in proportion to the obstruction offered. Whether what is consistent with the old theory is consistent with experience may be fairly questioned.

But, again, it may be said that palpitation occurs from excitement, and is nervous. But when we have eliminated the cases of Bright's disease and those so-called hysteric conditions accompanied by a contraction in the arteries and arterioles, the instances will be found to be very few, and to depend mainly on the presence of poisons, either taking their origin within the organism, as in bile-poisoning, for instance, or from the action of external agents, as nicotine. It is possible that there may exist conditions essentially nervous, where a derangement of the balance of nerve-supply to the heart, a disturbance of the balance existing between the cardiac ganglia of the sympathetic and the inhibitory action of the pneumogastric, may occasion palpitation; but of these conditions we do not yet know anything clinically. Nervous palpitation is a refuge in time of trouble only too commonly. Increasing knowledge of pathological conditions, and the advance of our acquaintance with the mode of action of disordered function, are shedding much light on what have been hitherto obscure cardiac derangements. Firstly came the connexion between disease of the kidneys and heart-changes. Traube attributed them to obstruction to the flow through the renal artery acting on the general systemic circulation; then came the idea of altered blood—in plain English, increased friction; and now Dr. Geo. Johnson has demonstrated a thickened muscular coat in the arterioles. The last theory supposes that the irritant action of the products of histolysis in the blood gives rise to a spasmodic action of the muscular tunic, in time leading inevitably, by the well-known law, to hypertrophy. Thus still greater obstruction is offered to the flow of blood, and the heart still more taxed. Thus when the blood is more than ordinarily laden with the products of retrograde tissue-metamorphosis, the excess irritates the arterioles, and more than usual contraction follows, and, as a consequence, impeded flow and palpitation. The balance existing between the altered muscular tunics and the heart's walls, also altered, is disturbed and the accommodation interfered with, and the extra call for action evokes palpitation. As to the frequency of palpitation among those suffering from Bright's disease, and its occurrence along with evidence from other sources of an accumulation of retrograding material in the blood, as a question of fact, I must leave to the experience of my readers.

In hysteria and allied nervous disorders we have palpitation without evidence of any structural change. So also it occurs in persons of bilious temperaments; it follows excessive tobacco-smoking in nervous or weak persons, as it may also follow the administration of other agents which affect the heart. Whenever there is disturbance in the balance of nerve-forces it may occur. Whenever the heart is acting under disadvantageous circumstances it is never long absent. Thus palpitation follows displacement, either transient or lasting. It persists in displacement from accident or disease. It is a common concomitant of a loaded stomach or great flatulence. Indeed, it may arise from any cause which, by pressure on the diaphragm, diminishes the space for the heart and impedes its beat. This looks rather like a laborious action than over-action or spare power. The heart is placed at a disadvantage, and palpitation takes the place of normal quiet contraction.

(To be concluded.)

The annual meeting of German physicians, which was to be held at Rostock, has been given up on account of the war.

CASE OF

RETROVERSION OF THE UTERUS SUCCESSFULLY TREATED BY LOCAL DEPLETION ALONE.

BY ALFRED MEADOWS, M.D.,

PHYSICIAN TO THE HOSPITAL FOR WOMEN AND THE GENERAL LYING-IN HOSPITAL.

I AM induced to record the following case, as it illustrates very forcibly the views which I advocated in a paper on Uterine Displacements published in THE LANCET in the year 1868 (vol. ii., pp. 71, 112), especially with regard to the pathology and treatment of those affections. The case is perhaps the more valuable because only one remedy was employed throughout the treatment; and I am therefore, I think, fairly entitled to consider that the issue of the case, which was unmistakably successful, was due directly to the effects produced by that one remedy. And, further, if this be so, it follows, I think, as a logical conclusion, that the pathology of the affection must be intimately related to the known effects producible by the action of the remedy in question. In other words, that, if relief follows depletion without any other treatment, engorgement must be the main if not the only cause of the symptoms complained of. Hence we see how the particular affection is developed, and how its cure may best be brought about.

CASE. — Mrs. M——, aged forty-one. Mother of three children, and has had three miscarriages. Most of her pregnancies occurred in India. All the abortions took place there, and were severe, the loss of blood being excessive. She first consulted me in the year 1866, on her return from India, when she was suffering a good deal from pains about the pelvis, the hips, loins, and down the thighs, with painful and difficult defæcation, dysmenorrhœa, and menorrhagia; in fact, the symptoms, together with the history, pointed directly to chronic metritis, *plus* the local phenomena due to uterine displacement. The symptoms *most* complained of, however, were those which we constantly meet with in cases of chronic engorgement without any displacement of the uterus.

On examination, I found exactly what was suspected: the cervix was large and spongy; the os patulous; the labia uteri pouting; the entire organ was bulky (measuring 3½ inches), heavy, depressed in the pelvis, and very tender; the cervix was directed to the pelvic outlet, the fundus to the hollow of the sacrum.

Treatment on that occasion restored the parts to a healthier condition; and as soon as a pessary could be borne, I replaced the uterus in its normal position, and applied a Hodge. With this she returned to India, where she remained two years, during the greater part of which time she wore the pessary, only having it removed occasionally for cleanliness, &c. Pregnancy did not occur then. In the autumn of 1869 she returned home again, and, seeing no necessity for the use of the pessary, I removed it. The uterus remained in its normal position, and there were no special pelvic discomforts.

For several months all went on well; but, as usual after a long absence from home, much was required of her in the way of visiting, and a good deal of exertion was the consequence. By degrees most of the old symptoms began to return, the catamenia became irregular in time and quantity, and at last (in March) menstruation ceased. Then the symptoms were much aggravated, and I again saw her. A vaginal examination revealed very much the same condition as I at first discovered, except that the uterus was not so bulky nor so much displaced; the os was directed to about midway between the symphysis pubis and the tuberosities of the ischia, the fundus to about the second sacral vertebra; it was also extremely tender to the touch.

Four leeches were ordered to be applied to the posterior part of the uterus, to be repeated three times at intervals of three days. I intended, as soon as this was done, to redress the uterus, and apply the Hodge as before. Somewhat to my surprise, however, I found, after the second application of leeches, not only that the tenderness and

engorgement were much relieved, but also that the uterus was in a much more normal position. After the third application of leeches, menstruation came on, and was somewhat free. A week after this I again examined, and found that the uterus had assumed its normal position, and that all tenderness had subsided. I determined, therefore, not to use any pessary; and from that time to this all has continued well. No other treatment of any kind was adopted.

Remarks.—Now, it cannot, I think, be doubted, that the local depletion and the relief of the symptoms stand here in relation to each other as cause and effect. It is not likely that such a condition would have "got well of itself"; it would most probably have gone on from bad to worse. The abstraction of blood gave relief to the symptoms, and as the local condition improved the uterus redressed itself. There has been as yet no return of the engorgement, and therefore no recurrence of displacement, nor any symptoms to complain of. It might be asked, perhaps, why not have replaced the uterus at once, applied a pessary, and thus have cured the case? My answer is, that I have again and again seen this treatment adopted, and with marked aggravation of the suffering. My object, however, is not now to enter on this discussion, but only to cite this case as illustrating one *fact* in therapeutics, which I think it does very conclusively. Opportunities are ample for testing it in the experience of others.

George-street, Hanover-square, July, 1870.

SOME REMARKS ON THE TREATMENT OF CASES WITH EXCESSIVELY HIGH TEMPERATURE BY THE EXTERNAL APPLICATION OF COLD.

BY C. BÄUMLER, M.D., M.R.C.P. LOND.

THE very interesting case of acute rheumatism with excessively high temperature, which was communicated to THE LANCET of July 2nd by Dr. Wilson Fox, furnishes a most important practical lesson as to the direction in which our efforts to rescue a patient from so hopeless a condition must move; and although this first attempt proved unsuccessful, the more immediate effects of the measures adopted are decidedly encouraging to a further trial in similar cases. For, as Dr. Wilson Fox says, "It is specially worthy of notice that, whereas in all the published cases of excessive temperature in rheumatic fever, death has occurred within five or six hours after a temperature of 109°F. has been attained, in this instance life was protracted for thirty-six hours."

Cases of acute rheumatism taking this unfortunate turn are comparatively rare, so that an opportunity for further trial of these measures will not often occur; but at this season of the year it may not be inopportune to call attention to the fact that the pathological condition in a certain number of cases of *sun-* or *heat-stroke* is perfectly identical with that observed in Dr. Wilson Fox's case, and in the similar cases described by Dr. H. Weber, Dr. Murchison, and others. Here, as there, we have complete paralysis of the higher functions of the nervous system—i. e., profound coma, a rapid and excessive rise of temperature and pulse, and in some instances colliquative diarrhœa. Now, any medical man may be called upon, on one of these close and hot days, to attend a patient who from perfect health has suddenly passed into this condition. This may occur on the meadow or in the harvest-field, in a foundry or in a sugar refinery, in an engine-room on board ship, or, in the case of a soldier, on the march. He ought, under these circumstances, to bear in mind that in cases in which the blood heat has reached 109° F. all the usual methods of treatment have proved utterly futile, and that the only cases in which a favourable result has been obtained were those in which an energetic cooling of the over-heated body was practised. Two years ago, in a contemporary, I drew the attention of the profession to the success which such an energetic proceeding had in the hands of Dr. Levick,* of Philadelphia, who, by having the body of the patient rubbed with pieces of ice, saved the lives of two patients in whom the temperature had reached 109° F. in the axilla. If ice cannot be obtained, the best substitute would probably be cold full baths (of a temperature of 60° and lower) of short duration (ten to fifteen minutes), and frequently repeated; as, according to Liebermeister's researches, of all the usual cooling methods, they give the greatest immediate and the most lasting effect. In the bath friction ought to be made of the patient's skin, especially on the extremities, in order to promote the peripheral circulation, and to agitate the water. Where cold full baths cannot be had, repeated cold affusions (which, however, are much less effectual) must take their place.

* Pennsylvania Hospital Reports, vol. i., p. 360.

Cases of sun- or heat-stroke may be hoped to give better prospects of a favourable result by timely and resolute measures than cases of an excessive pyrexia in acute rheumatism. For in the former the patient has been suddenly seized with those symptoms while in health, whereas in the latter the nervous system is already more or less exhausted by the previous illness.

It hardly requires mentioning that the treatment of such cases ought, at every step, to be carefully guided by the thermometer, which, there is reason to hope, will very soon be the pocket companion of every practitioner.

The recent researches of Dr. S. Ringer, Dr. Binz, and others, as to the action of alcohol and quinine, justify the employment of these remedies in addition to any cooling measures. If the patient can swallow, full doses of quinine (twenty to thirty grains) may be given by the stomach; or, if this be impossible, a corresponding dose may be subcutaneously injected. Brandy may be administered by the mouth or rectum.

The action of quinine, as well as of the external application of cold, on pyrexia has recently, to a certain extent, been theoretically explained by the researches of Dr. Haidenhain. This physiologist has found that the irritation of a sensitive nerve produces a lowering of the blood-heat in animals, and he has experimentally proved that the medulla oblongata is the centre through which this reflex action takes place. He has further made the interesting discovery that pyrexia (which was artificially produced in animals) abolishes this function of the medulla oblongata, but that it becomes gradually restored when such an animal is covered with ice-water compresses, or when quinine is injected into its blood. Thus it appears that both these proceedings have a stimulating effect on the regulating centre which the previous experiments have shown to exist in the medulla oblongata, and which by those processes that cause pyrexia, or by the pyrexia itself, becomes exhausted.

Finsbury-place North, July, 1870.

ON A CASE OF EXCISION OF A PART OF THE EXTERNAL MALLEOLUS, OS CALCIS, & ASTRAGALUS.

BY JOHN DEARDEN, M.R.C.S.L. &c.

THE notes of the following case I thought would be sufficiently interesting to some of the readers of THE LANCET, showing that in private practice operative measures have to be had recourse to, and sometimes under more than ordinary difficulties.

M. P——, a power-loom weaver, aged twenty, who had always enjoyed good health, after a severe "wetting" on returning from work, in October, 1866, took cold, which was followed by a slight attack of scarlet fever. Under treatment she quickly got better, and continued well, with the exception of the catamenia not having appeared (previous to which time she had always been quite regular) until December of the same year, when I was again called to see her. There was no particular constitutional disturbance, but she complained of great pain in the right ankle-joint, so much so that it could scarcely be stood upon. On examination I found it to be considerably swollen, red, and tender on pressure, and the pain increased by motion. Ordered fomentation, and the limb to be rested as much as possible, and to take iron and aloes pill night and morning; also warning them that it may prove to be a case of diseased

bone in an incipient stage. The treatment was indifferently followed until April, 1867, when, not being satisfied, she was placed under the care of someone else.

I lost sight of her until June, 1868, when I was again requested to see her. The patient told me that the ankle had not improved at all. I found, in addition to the swelling, three sinuses—one above, one behind, and one beneath the external malleolus, the upper one being much the largest. On introducing a probe into the upper sinus it passed downwards towards the astragalus and os calcis, which felt rough and carious. She also drew my attention to a fistulous opening in the back, about the size of a shilling, on the left side of, and about opposite, the sixth dorsal vertebra, midway between the base of the scapula and the spinous processes. The probe passed almost the whole length under the scapula into what appeared to be a large cavity, but not communicating with the vertebræ. She informed me "that the ankle had been opened in September, 1867, and the abscess in the back in the early part of the following year, by the gentleman under whose care she had been, the abscess in the back, at the time of being opened, having discharged a large quantity of matter, and both had continued to do so ever since." At the time of my visit the discharge was of a thin, ichorous character. Her health had given way, she had lost flesh, had little or no appetite, could not walk without assistance, the catamenia had not appeared, but there was no indication of phthisis. Ordered, a generous diet, and a mixture of disulphate of quinine, ammonio-citrate of iron, with iodide of potassium, three times a day; the abscess in the back to be syringed out three times a day with a lotion of carbolic acid in water (one to twenty); the ankle to be dressed with simple dressing.

This treatment was continued until the early part of September, 1868, at which time her health had much improved; she had regained flesh considerably; the back had healed completely; and, as she remarked, "If it were not for the ankle I should be all right again." She was very wishful that operative measures should be taken to remove the diseased bone; I therefore agreed to her request.

On Sept. 15th, chloroform having been administered by Dr. Gillespie (who had previously seen the case, and fully coincided with me in the necessity for such measures), and the limb having been steadied, I proceeded to make a crucial incision over the malleolus, as seen in the engraving,

extending from the tendo Achillis downwards to about opposite the cuboid and fifth metatarsal joint, and, crossing it at nearly right angles with an incision of the same length, the incised parts were then reflected back. The finger, being introduced into the wound, detected softening of the end of the malleolus, the side of the astragalus and os calcis, the disease evidently not implicating the articular surfaces of any of the bones. With a small gouge all the diseased bone (in thickness about half an inch) was removed, as well as some of the sound (to make sure of not leaving any diseased portion behind), care being exercised not to injure the tendons of the peronei longus and brevis, which were visible in the sheath. The only artery which was divided, and was necessary to be tied, was the malleolar branch of the anterior tibial, consequent upon its being larger than usual. The parts were carefully sponged, the edges of the wound brought together with wire sutures and ordinary strapping, the whole being enveloped with a bandage, and a pad of lint, kept constantly moist with the carbolic lotion, was applied outside the bandage. The limb was placed on a padded side splint, and secured with a few turns of the bandage.

Sept. 16th.—Passed a tolerably comfortable night; slept at short intervals; some oozing of blood took place, but not to such an extent as to require the reopening of the wound. The catamenia came on during the night, being the first time for two years. From that time the patient improved slowly but steadily, so that by the end of the year the wound was perfectly healed, and with the help of a stick she was able to walk a little. With the exception of a slight depression, there was no deformity of the joint, and a fair amount of mobility was preserved.

Dec., 1869.—The patient has continued well up to the present time, has a useful limb, and can walk almost as well as ever she could.

Brook House, Church, near Accrington, 1870.

ON A CASE OF

POISONING BY LABURNUM.

BY THOMAS TINLEY L.R.C.P.Ed., &c.

As cases of poisoning by the Cystisus Laburnum are, fortunately, somewhat rare, and as some interest was taken in a case recorded by Mr. Wilson of this town in the columns of THE LANCET a year or two ago, the following case may, perhaps, not be devoid of interest to the profession.

I was called between 5 and 6 A.M. of the 22nd ult. to visit Mary B——, aged eighteen, who was said to be suffering from "cramp at the stomach." When I saw her she was complaining of great pain in the region of the stomach, constant nausea, and retching, but no vomiting; pulse about 100, moderately full; tongue coated white; intense thirst; great anxiety of countenance; face and lips pale; pupils dilated; constant feeling of fainting, even in the recumbent position, and when set up in bed she immediately fell back, and lay for some time quite exhausted. I inquired if she knew anything which had caused the above symptoms; but the only way she could account for them was by having the day previous been for a long country walk, and returned home very tired, the symptoms coming on about half an hour after she got home. The bowels not having acted, I ordered her a calomel purge, and an effervescing citrate-of-ammonia mixture. I saw her again during the day, and found her in much the same state. The day following (23rd) I again saw her; and on finding her as on the day previous, I asked her if she could remember anything she had taken when in the country on the 21st. For some considerable time she remembered nothing; but afterwards remembered having a piece of a tree, which had a yellow flower on it (which from her description and the position of the tree I knew to be laburnum). The branch would be about the thickness of one's little finger, and two or three inches long. This she carried in her mouth, and chewed for two or three hours; and also had some of the flowers in her mouth, but did not think she swallowed them. The symptoms came on about half an hour after she had chewed the branch, gradually increasing until I saw her.

May 24th.—The pain, which is confined to the epigastrium, is much worse; and she appears to be in great agony. Ordered an ounce of castor oil, to be followed by a full dose of opium after the oil has acted. Turpentine stupes to be applied to the epigastrium, followed by hot bran poultices.

26th.—Appears much better; pain greatly relieved, but complains as much, or more than ever, of the faintness, which is increased by the slightest movement.

28th.—Still improving; but cannot sit up on account of faintness. Takes a fair quantity of support—beef-tea, milk, and brandy.

29th.—Complains much of sleeplessness, which has been a marked symptom from the first. Ordered twenty-five grains of chloral in syrup.

30th.—Took the chloral draught at 10 P.M., was asleep at 10.30, slept till 4.30, was then awake about ten minutes, and slept again till 9.30. Feels much better; pulse about

90; can sit up, but complains much of giddiness. Ordered a tonic, with compound spirits of ammonia.

June 1st.—There has been a good deal of vomiting and purging. Thinks she sat up too long yesterday. Ordered chalk mixture, with tincture of opium.

2nd.—Much relieved by mixture, and passed a good night.

5th.—Convalescent.

Whitby, June, 1870.

A CASE OF INTUSSUSCEPTION CURED BY INFLATION.

BY R. C. LUCAS, L.R.C.P.,
HOUSE-PHYSICIAN TO GUY'S HOSPITAL.

WILLIAM F. B——, aged four months, a child fed entirely by the breast, began suddenly to scream and kick as if in great agony, at 6 P.M., on Monday, May 23rd, and his mother found it impossible to pacify him. Shortly afterwards he was sick, and a powder administered in the course of the evening was immediately returned. The sickness and restlessness continued during the two following days, but the child passed nothing by the rectum from the time he was first taken ill until about 3 P.M. on Wednesday, when he passed blood unmixed with fæcal matter, the appearance of which induced his mother to bring him at once to the hospital.

When seen the child was cold and collapsed, with sunken eyes, sallow complexion, quick feeble pulse, dry lips, and a pinched abdominal look.

As the father refused to allow the child to be admitted into the hospital, chloroform was administered in the surgery and the rectum inflated with air by means of bellows, care being taken to prevent any reflux of air by wrapping sufficient lint around the enema tube to completely plug the anus. At first no great alteration was evident in the size of the belly, but after a time a gurgling in the intestine, followed by rapid distension of the abdomen, appeared to indicate that the reduction of the intussuscepted portion of bowel had taken place, and the operation was then discontinued.

The child was ordered one minim of laudanum every four hours, and twelve drops of brandy every hour.

May 26th.—The child has not been sick since the operation, and passed a healthy motion at 10 A.M. this morning. He still looks collapsed and sunken; has not screamed so much, but threw his arms about and drew up his legs as if in pain when not asleep. Pulse 160. Takes the breast ravenously.

27th.—He has passed a bad night, screaming and drawing up his legs. Has passed three motions. Pulse 108. Still looks very low.

28th.—The child has had a much quieter night, and slept much better. This morning he passed one healthy motion. He looks much brighter, and takes notice of persons and toys. His face is filling out. Pulse 120.

29th.—The child has had one motion since yesterday, and continues to improve in health. He still appears to have pain in the abdomen, for when lifted he draws up his legs and cries. Pulse 110. Ordered one drop of laudanum every six hours, and twelve drops of brandy every two hours.

30th.—To-day he looks brighter. Has passed one motion since yesterday.

June 1st.—He has quite recovered his spirits; laughs and crows. Has had two healthy evacuations since yesterday. Pulse 120. Occasionally, when jerked in nursing, he draws up his legs and cries.

3rd.—The child has made a complete recovery.

Remarks.—I would suggest, in those cases of intussusception in which the tumour cannot be felt in the abdomen, the occurrence of gurgling followed by rapid distension of the abdomen may be a valuable indication that the bowel has been reduced.

June, 1870.

SMALL-POX still rages fearfully in Paris, no less than 227 deaths from that cause having been registered during the past week.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

CLINICAL REMARKS BY DR. ANDREW.

OBSTRUCTION OF THE THORACIC DUCT IN THORACIC ANEURISM.

ON examining a patient who was the subject of an aneurism situated in the left half of the chest, Dr. Andrew expressed the opinion that a considerable thoracic tumour in that situation inevitably causes obstruction of the thoracic duct. He had heard Professor Turner, of Edinburgh, express the same opinion; and had himself on two occasions endeavoured to inject the duct in similar cases, and found it completely closed at the site of the tumour. And he suggested that the obstacle thus presented to the supply of new material to the blood might have at least a share in inducing the well-marked cachexia which patients suffering from aneurism often present.

SUPPURATION WITHOUT HECTIC.

Dr. Andrew drew attention to the absence of any symptom of hectic in a patient in whom a purulent discharge was being continuously evacuated by expectoration from the right pleural cavity, the patient being also the subject of pneumothorax. He said that hectic is by no means a necessary accompaniment of even profuse suppuration. If, however, pus, or even mere serous fluid, were confined in a cavity, or ceased to be of laudable quality, a constitutional effect would at once be found to ensue. With reference to this subject one of the house-physicians who was present said that a patient of Dr. Harris's had been recently tapped for a suppurating hydatid of the liver, and that the fluid, having accumulated at the rate of a pint a day, had been removed by occasional subsequent tappings. At first the patient exhibited a most voracious appetite, and appeared to suffer no ill effect from this profuse discharge; but on a certain day, her appetite failing, she refused her large allowance of food, and in the course of a few hours her temperature rose, she became hectic, and daily increasing exhaustion caused death in ten days.

SOURCES OF ERROR IN AUSCULTATION.

Dr. Andrew said that any student who wished to accustom his ear to the sound of so-called "cavernous" breathing, might do so by listening over the vertebra prominens to the passage of the air through the trachea. Loud breathing, which a novice might take to be evidence of disease, might also be heard between the scapulæ over the root of the lung; while, on account of the position of the corresponding bronchus, the right apex yields in health signs which would justify the suspicion of incipient phthisis if observed over the left—namely, slightly impaired resonance and tubular breathing, and a more direct and less humming voice resonance.

SEQUELÆ OF EXPOSURE TO THE SUN.

G. B——, aged thirty-eight, a patient in one of Dr. Andrew's wards, lay from about 11.30 to 12.30 of Sunday morning last on the grass of an open field without his cap. When he rose to his feet he felt giddy, and had sensations of swimming and throbbing in the head. He travelled home by rail, a distance of a few miles, and lay on the sofa for the remainder of the day, without tasting food. On the following morning he went early to his work, taking with him his breakfast, which, however, he was unable to touch. In the course of two or three hours the giddiness and throbbing in the head, to which had been superadded a severe pain extending down the spine from the root of the neck

to the loins, became so severe that he could scarcely keep his feet; and he applied for admission into the hospital. His temperature was found to be 100·6° Fahr. He was ordered to bed; ice was applied to the head, and a mustard plaster to the loins. This latter application was followed in about twenty minutes by a cessation of the dorsal pain; and on the following morning the patient expressed himself free from giddiness and throbbing. When last seen, four days after the first appearance of the symptoms, he said he felt well, but his manner was somewhat tremulous.

CASE OF HEAT APOPLEXY.

(Under the care of Dr. HARRIS.)

We are favoured with the following account by Mr. H. E. Symons, the house-physician:—

C. M——, aged three years and a half, was admitted into the Elizabeth ward on the morning of 15th June last. His mother stated that she found him asleep in the sun about 4 o'clock on the previous afternoon. About 8 o'clock in the evening he was seized with severe headache, short and hurried breathing, and bilious vomiting, which continued nearly all night. About 3 A.M. on the following morning he became semi-comatose, and remained in that condition up to the time of admission.

He was then found to be still semi-comatose, but he could be roused slightly when spoken to loudly. The pupils of both eyes were much and equally contracted. Respirations 48, short and hurried; skin dry and harsh. Temperature 101·6° Fahr. Pulse 132, regular, but rather weak. Tongue moist, and covered with thin white fur. Respiratory and cardiac sounds normal. At 5 P.M. he awoke out of a heavy sleep, and could answer questions. The pupils were still contracted. He had passed his water in bed. Ordered three grains of calomel.

On the second day he had passed a restless night, and was crying with pain in the belly. The calomel had not been retained; the bowels had not acted since admission. The tongue was red and slightly furred; the cheeks flushed; the pulse 180, full and compressible; the temperature 103·4°. He was more rational, and did not complain of pain in the head; the pupils were moderately contracted; the urine was acid, of a pale sherry colour, and contained no albumen.

On the third day he had passed a pretty good night. The bowels had acted freely after a dose of castor oil; the tongue was red and furred laterally. Pulse 120; temperature 101·4°.

On the fourth he had passed a good night. The pulse was 120; temperature 100·6°. He complained still of slight pains in the abdomen, but of none in the head.

On the fifth morning he had slept well; the abdominal pains were passing off. Pulse 120; temperature 103°. Skin harsh and rather dry.

On the sixth day he was progressing favourably. Pulse 116, soft; temperature 100°. Bowels acted naturally, and the intelligence was clear.

On the ninth day convalescence was well established, and on the 11th the patient was discharged, well.

In addition to the above-mentioned remedies, a simple saline was administered; and the diet, consisting of beef-tea and arrowroot, was free from stimulants.

ST. MARY'S HOSPITAL.

CASE OF HEAT APOPLEXY, FOLLOWED BY CATALEPSY.

(Under the care of Dr. SIEVEKING.)

THE patient, a lad about thirteen years of age, was stated on admission to have been in a state of semi-consciousness for four days; saliva was dribbling from the mouth, the eyes were partly closed, the pupils equally dilated, the face flushed, the pulse 108, and the temperature 100°. He was with difficulty made to drink an aperient draught, and an enema of castor oil and hot water was administered, and ice applied to the head. On the morning after admission he had so far improved that he was able to assist the nurse in washing him, and to answer questions intelligently; but towards evening he became more dull, and on the following morning he was found to be in a cataleptic condition: the limbs were very rigid, and would remain in any position in which they were placed; the face was flushed, the eyes fixed, the pupils rather dilated, the jaws rigid, and the tongue projected a little between the teeth, while some froth oozed from the mouth; the pulse was 90, full and regular; the temperature 99°; he passed his motions and urine involuntarily. Since that time the general character of the symptoms has remained much the same, though he is gradually recovering consciousness, and could, when we last inquired, be occasionally roused into answering a question, and would sometimes express his wants spontaneously.

The account given by his parents is, that five days before they brought him to the hospital he spent an entire day and evening on the Thames Embankment. On returning home at about midnight, he complained of pain in the head, and said he thought he was going to die, and began gradually to lose consciousness.

UNIVERSITY COLLEGE HOSPITAL.

(SKIN DEPARTMENT.)

UNUSUAL FORM OF ECZEMA LABIALIS.

(Under the care of Dr. TILBURY FOX.)

Two cases of some interest, as showing how, on account of the superaddition of accidental phenomena, eczema may vary in aspect, have recently been attending as out-patients in Dr. Fox's clinique. In both the seat of disease was the upper lip, just below the nose. The patients, who were both men, stated that the disease arose from a cold; that then the lip enlarged gradually so as to produce considerable thickening and swelling. It so happened that on one occasion a distinguished foreign dermatologist was present, and he suggested that the disease was of the nature of epithelioma; but the rapid cure and the history of the cases entirely set aside this explanation. When first seen the disease consisted of a swelling extending half an inch laterally from side to side of the frænum of the nose, and from above downwards to near the junction of the mucous membrane and skin. It was, in fact, an oval swelling, the skin being raised about three or four lines. The swelling felt elastic; it was not hard, but it was tender, and smarting was often felt in it. The colour was inflammatory. On close examination the hair follicles were seen to be more distinct than usual, and to be pustulating at their apices. There were here and there slight crusts. The hairs of the moustache, which had been cut off close to the lip, were not loosened nor altered in texture; but on pulling at them, much pain was at once experienced. In fact, it was, perhaps, the papillated aspect given to the general swelling by the enlargement and projection, so to speak, of the follicles that led to the idea of the disease being epithelioma; but, on careful examination, it was seen that the disease was clearly produced by inflammation of the hair follicles, implicating the fibrous tissue round about to a greater extent than usual. The history showed the case to have commenced by the extension of a catarrh from the mucous surface to the hair follicles. There was no free crusting, as in ordinary impetigo labialis. The disease might have been termed by some non-parasitic sycosis, which is of course nothing more or less than catarrhal inflammation of the hair follicles; but, in the present instance, the aspect was not so distinctly pustular as is usual in inflammation of the hair follicles about the face, and the swelling of the deep fibro-cellular structures was very marked—much more marked than usual. The disease began as an eczema, involving the parts about the hair follicles. Dr. Fox has met with many instances of the condition now described; and he is very emphatic in condemning the use of irritants, stimulants, or active absorbents in the early stage of the disease. He states that all these remedies increase the follicular irritation. The use of litharge ointment so as to exclude the air, after hot fomentations, the avoidance of stimulating things, with alkalies and tonics internally, and subsequently strapping with lead or mercurial plaster, and the use, in the very chronic stage, of iodine, are most serviceable. But the avoidance of irritating applications, in the early stage, is the most important point to remember in reference to the treatment.

ST. THOMAS'S HOSPITAL.

CASES OF LIGHTNING-STROKE.

(Under the care of Mr. SIMON.)

THROUGH the kindness of Mr. Thomas, house-surgeon, we are enabled to give the following particulars.

In the case of one patient, a woman, the lightning inflicted a burn extending from under the chin, over the fore part of the body, to the ankles. The eyebrows are singed. Under the chin and over the chest the surface is charred. Above the left groin are some sloughs, supposed to have been produced by heated or molten metal of the stay-busk or crinoline. The pubic hair is burned off, and the legs are blistered.

On admission to the hospital, four hours after the occurrence, the patient had a good pulse, and presented no symptoms of shock; but she continued to complain, up to the date of our observation, of severe throbbing pain at the back of the head, and of a haze passing occasionally before the eyes. She is not much distressed by pain, but requires a sedative at night.

In another case, that of a man, the lightning passed through the trowser at a point immediately above the left outer ankle, and through the elastic of his boot immediately underneath; then passing downwards and forwards, inflicted no wound until it met the expanse of the dorsum of the foot. There it inflicted a quadrilateral burn, commencing about an inch and a half in front of the head of the ankle, and extending to the roots of the toes. The wound is granulating healthily. This patient also complains of a throbbing headache, and of a haze passing frequently before the left eye, from which the throbbing extends backwards to the occiput. It is to be noticed that the conjunctiva of this eye is slightly injected, and exudes a scarcely perceptible discharge, which, however, seals the lids during the night's sleep; that these symptoms have existed only since the lightning stroke, and that in consequence of them the patient is unable to read. There is also a slight haziness of the cornea of this eye, but this is traceable to an attack of ophthalmia during childhood.

The condition of the man's boot is interesting. The only part affected is the elastic webbing on the outside, the woven tissue of which is frayed off from the elastic threads in three lines, one passing obliquely backwards and downwards, the other two descending vertically from the oblique one. At the junction of the anterior vertical with the oblique line, the tissue is frayed off within an area equal to the size of a threepenny piece; but nowhere is there the least burning or a trace of fusion of the elastic threads themselves. The whole damage to the webbing might be included in a square inch. The sock underneath was found unscathed.

Reviews and Notices of Books.

Compound and Comminuted Gunshot Fractures of the Thigh, and Means for their Transportation, &c. By JOHN SWINBURNE, M.D., of Albany, New York. Albany: Van Benthuysen's Printing House. 1864.

THIS is a reprint from the Transactions of the Medical Society of New York; and it may prove interesting at the present time to discuss the method of treatment of these very grave injuries as advocated by the author. He appears to have been induced to bring his views and the results of his experience before the notice of the Society from hearing the subject of gunshot fracture of the thigh discussed in the surgical section of the Academy of Medicine by Frank H. Hamilton, E. Krackowiser, and others,—all concurring in the opinion that those injuries, not involving the knee-joint, did not call for amputation. In fact, more recovered without amputation than with it, but with defective limbs. The question remained—What plan was the most feasible for carrying out this humane object? None was presented, except Smith's anterior splint, Professor Buck's arrangement, and the long straight splint; which, however, were not always available on the battle-field, on the march, in temporary hospitals, or while the sufferer was being transported to temporary hospitals. If the patient do not die of exhaustion, the parts may become so conditioned as not to be amenable to scientific treatment. The lateral as well as the longitudinal distortion is, in most instances, great; and these results are attributed by the author to the absence or deficiency of immediate treatment. The system advocated by Dr. Swinburne is the utilisation of the stretcher as a splint. As soon as possible after the injury he would place the patient on a bed or stretcher, extend the limb to its natural length, and retain it in that position by fastening the patient's foot to the end of the bed or stretcher by means of adhesive plaster, making counter-extension by the use of a large perineal band fastened to the head of the bed or stretcher. There should be no bandaging of the thigh or leg. In order more fully to make the stretcher a splint, he proposes to place two sliding iron rods, the length of which should be from eight to twelve inches, upon the handles of the stretcher, provided with thumb-screws to keep them in any desired position, and allow of their being depressed, elevated, or extended as the case may require. The foot-strap can be fastened to the sliding iron rod at the foot of the stretcher, while the perineal belt can be fastened to the sliding iron rod or arm at the opposite end. In order to avoid the tendency of the foot to invert or evert, a bag of sand or bran, or some such simple expedient, might be necessary to secure the proper position of the limb.

The statistical data marshaled in favour of the practice of the conservative treatment of gunshot fractures of the thigh are large. The pamphlet concludes with a series of rules for excision of joints and for the treatment of simple fracture of the shaft of long bones. There is, however, at the present time a good deal of discrepancy between the statements of German military surgeons as to the relative merits of amputation and resection as illustrated by their late campaign in Bohemia. It has been alleged by some that many of the resections have not proved in their ultimate results so satisfactory as could be desired. The excitement, hurry, and movements incidental to the exigencies of warfare militate against the systematic observation of surgical practice, and preclude the employment of many of those methods of procedure which might be adopted with advantage under more favourable circumstances.

First Report of the Gas Referees to the Board of Trade. Official Return, July, 1870.

No subject is more immediately interesting to the three millions of people concentrated in this vast metropolis than the gas question. Thames embankments, underground railways and urban tramways, or the opening of new streets, affect but a limited section of our civic community, compared to the gas-supply. From Hampstead and Highgate in the north to Sydenham in the south, from Woolwich in the east westwards to Hammersmith and Kensalgreen, London is permeated underground by an arterial system of huge iron pipes (called the mains) branching out into minor ramifications, filled with illuminating vapour as invisible as the air itself, which conveys the means of artificial light into every thoroughfare and every house—rising in the pillars of our myriad street lamps to guide us through all hours of the night, and springing forth in sparkling jets from the innumerable burners which in our houses turn night into day.

Artificial light has become more and more a necessity of the somewhat strange life to which civilised mankind are prone, and in which the progress of science enables us to indulge. A large portion of our work is now carried on solely in arti-

ficial light, and nearly all our festive hours are spent under the same borrowed radiance. The opera, the theatre, and other places of public recreation, all shine and are enjoyed by means of gas; and so strange are some of our tastes and habits, that balls and dancing parties would appear absurd if carried on during daylight; and even our dinner parties grow more gay when the window-curtains fall and artificial light replaces that of the waning sun.

But, irresistible as this habit is, it is well to keep in mind the vitiation of the atmosphere inseparable from the use of artificial light. More and more, late hours, with their necessary accompaniment of artificial light, are gaining ground; they appear to be a necessary part of what we call civilisation, and on that very account it is specially needful that civilisation, with its endless progress in science, should be called upon to remedy some of the drawbacks of this nocturnal life to which it is so prone.

On the average of the whole year, thirty millions of cubic feet of gas are daily consumed in London; and in the winter half-year the daily average is very much greater. In fact, about 500 tons of gas are daily, or rather nightly, consumed in London in the winter months; and by far the greater portion of it is consumed in our houses, and affects the atmosphere which we breathe. How vitally important is it then that this enormous amount of gas should be supplied to the public as pure as gas manufacture can make it. Pure gas consists simply of the hydrocarbons. The impurities consist of carbonic acid, carbonic oxide, ammonia, and the sulphur compounds. These substances may truly be called impurities, because all of them impair the illuminating power of the gas, a cubic foot of gas containing any of these substances yielding less light than if the gas consisted wholly of hydro-carbons; and some of them in the process of combustion vitiate the atmosphere with noxious elements, from which pure gas is free. Chief among these is sulphur, either in the form of sulphuretted hydrogen or bisulphide of carbon, and probably other compounds, all of which when burnt are converted into sulphurous acid, injurious to health, and also, in some respects seriously, to furniture.

Parliament, in response to the urgent solicitation of the municipal bodies, has at length, in a very effective manner, dealt with this important question. For ten years past the amount of Parliamentary litigation, arising from the conflicting interests of the public and the companies, has been at once formidable and costly; but recently the protracted contest appears to have come to an end. The principle or system established by the Gas Acts of 1868 and 1869 is now accepted as thoroughly satisfactory in the interests of the public, and we are not aware that the companies entertain any thoughts of reopening the question. All that is wanted is that the operation of those Acts, which is at present confined to certain companies only, should be extended to the whole metropolis. The Act of 1868 applied only to the three companies (now amalgamated into one) which supplied the City. The Act of 1869 extended the operation of the previous Act to two other companies—the Imperial and South Metropolitan. But there is this difference: either 16-candle gas is too much to exact from the City companies, or else 14-candle gas is too little to require from the two other companies. We do not as yet presume to say which of these requirements is the fair and proper one; but we must take note of the discrepancy, and trust that it will be remedied in the general Act shortly expected by which all the London Gas Companies will be subjected to legislative supervision and control.

By the Acts of 1868 and 1869 a testing-place has to be established in connexion with each of the gasworks (nine in number) belonging to the companies included under those Acts, such testing-places to be as near as may be to, but not less than 1000 yards from, the gasworks. The testing stations have to be erected, fitted up, supplied with apparatus, &c., and permanently maintained by and at the expense of the gas companies, the civic bodies having only to pay the salary of the gas testers chosen and employed by them in those testing-places.

By the same Acts a Board of Referees was established (appointed by the Board of Trade), to carry out the provisions of those Acts in regard to the illuminating power and purity of the gas, to inspect the gasworks, and to determine, after due investigation, several important matters which Parliament naturally enough did not find itself competent to decide. The Referees have to select a proper site for each testing station, and they have taken care to place it in direct connexion with the leading main pipe proceeding from each gaswork, so as to make it as effective as possible in the interests of the public. They also prescribe the manner in which each of those stations is to be fitted up, and the apparatus (including burners, chemicals, candles, &c.) to be therein used; and they have to inspect and "certify" the testing-places from time to time, to see that they are maintained in an efficient state. They prescribe the mode in which the testing, both for illuminating power and for purity, has to be made, which they do by "instructions" to the gas examiners, issued every six months, and which they modify from time to time according to circumstances, and also with the view of improving the testing processes—a great improvement of this kind being their new sulphur test recently established in all the testing-places. They are also responsible for the supply of correct test solutions, test burners, candles, and other appliances—a matter of paramount importance to the public, for otherwise there would be no check on the gas companies in this matter, and the public would have no security that those appliances of testing which are provided by the companies are of the proper kind, as prescribed by the Referees.

We have before us a copy of the last-issued instructions to Referees, and we have much pleasure in finding that these stations are in all respects excellently fitted up. Each of these consists of two or three rooms, furnished with every appliance which can possibly be needed for testing; and comfortably fitted up for the gas testers employed in them. The "instructions" of the Referees, which include tables and forms of the calculations, are devised in such a manner as to simplify the work of the gas examiners as fully as possible; but we doubt whether they would not do better to follow the example given by the gas authorities of Paris, and describe every item of the manipulations of testing with greater minuteness. They must bear in mind that they have not to deal with practised analytical chemists, but with (for the most part) mere lads, competent, we presume, for their work, but requiring to be kept tightly in hand. In other respects we have no fault to find.

Two Reports of the Boards of Referees have been published as Parliamentary papers; but as these are highly important documents, we must reserve our remarks on them for another occasion. Meanwhile, we may offer a concluding word upon some points of the present legislation which we think defective. We have already called attention to the discrepancy in the price of gas, as fixed by the Act of 1868 for the City companies, and as fixed by the Act of 1869 for the Imperial and the South Metropolitan companies—a discrepancy which ought to be removed in the general Gas Act for the metropolis, which we trust will soon be introduced into Parliament. One other objection to the present Acts is the distance (1000 yards) from the gasworks at which the testing stations are to be placed. In most cases

the distance is unobjectionable; but we do not think it is applicable to a case like that of the Fulham works of the Imperial company, where the gas has to travel some three miles before entering the district to be supplied. This objection becomes still more decisive with regard to the new works of the Company at Barking, where the gas will have to travel eight or ten miles before it is supplied to the public. In such cases we think the testing action should be erected at the place where the supply of gas to the public begins; or, still better, the locality of every testing station should be irrespective of any fixed distance from the gas-works, and the Referees should be required to fix it at any place which they consider fair in the interests of the public. Since gas of a certain illuminating power is to be supplied to the companies, the public have a right to demand that they should not lose the benefit of that provision merely from the magnitude of the area supplied by a company, or in consequence of the works of that company being removed to a distance from town.

OUR LIBRARY TABLE.

Heat a mode of Motion. By JOHN TYNDALL, LL.D., F.R.S., Professor of Natural Philosophy in the Royal Institution of Great Britain. Fourth Edition. London: Longmans, Green, and Co. 1870.—This is the most known, as it is in our opinion the best, work that Professor Tyndall has yet published. The fourth edition differs from the previous ones, in that it embraces an account of the author's researches on the chemical reactions of light, considered from a dynamical point of view; the relations of gaseous matter to the shorter waves of the spectrum; the bearing of some of the results on two great questions of meteorology—the blue of the sky and the polarisation of its light; a hypothesis regarding the constitution of comets; and some remarks on the polarisation of heat.

Winterings at Mentone. By WILLIAM CHAMBERS. London: W. and R. Chambers, Paternoster-row; and High-street, Edinburgh. 1870.—Those who are desirous of securing the benefits of sunshine and tranquillity on the shores of the Mediterranean will read this little book with interest. It is a non-medical book, and will not, as its author tells us, supersede the necessity of consulting professional advisers; but it is agreeably written, and contains much information as to the hygienic value of passing a winter in the south of France.

Du Fonctionnement des Ambulances Civiles et Internationales sur le Champ de Bataille. Par J. P. BONNAFONT, Médecin Principal des Armées en Retraite, Membre Correspondant de l'Académie Impériale de Médecine, &c. Paris: Baillière et Fils. 1870.—A short paper indicating the advantages of centralising the *matériel* &c. employed in succour of the wounded in a number of different depôts, from which supplies and aid might be afforded as circumstances require; and advocating the employment of a number of neutral ambulance vessels, to be attached to naval squadrons, for the relief and succour of the sick and wounded in naval warfare.

Maps of the Seat of War.—As it is highly probable that several members of our profession, and others connected with it, may be debating about proffering their services in aid of the sick and wounded, and as a far larger number of persons, who have no such intention, will be interested in following and discussing the movements of the belligerent armies, we have thought it well to say a few words about the shoal of war maps that have made their appearance. We last week noticed a capital map published by Messrs. Letts, and this week we have before us those of other publishers—namely, Wyld's most reliable map, very minute in its details, and carefully prepared, and requiring a good deal of scrutiny to take in all its merits. W. and A. K. Johnston's series of maps—of different sizes and prices—that of Central Europe from Paris to Vienna, with the Rhine, Elbe, Oder, and Danube, showing clearly on a large scale the railways and fortifications, with the sites of battle-fields marked by crossed swords and the date; another of the Rhine frontiers, also showing railways and fortifications, very good and very cheap at sixpence. Bacon and Co.'s maps—No. 2, a war map of Central Europe; No. 3, of Europe; No. 8, of the Rhine District from Cologne to Strasbourg; and No. 9, a military map of Central Europe—are also very good. The first is minute and elaborate in its details; and the last, No. 9, is an excellent bold-print military map. Lastly, C. Smith and Son have published a useful map which will probably have a good sale. Of course, there are hosts of others; but we have examined and compared these with each other, and with some of the largest and best maps with which we are acquainted.

MR. HULKE'S ARRIS AND GALE LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

IN his third lecture, Mr. Hulke proceeded to describe the histology of the new growths which originate on or within the eyeball. He observed that no other organ offers the same opportunities of observing some kinds of tumours in their early stages, of noting the changes which attend their growth, and of marking the changes to which they give rise in the parts they invade.

Dividing ocular growths into the cystic and the solid, the lecturer observed that he had met with true cysts only in the iris and retina. In the former membrane these cysts increased in size, overlapped the pupil, produced iritis, and in time destroyed vision. They always refilled after puncture, or after incomplete removal; and the only prospect of cure was by complete removal, a proceeding that was usually only practicable in their early stages. Retinal cysts are extremely rare.

Among solid tumours of the eyeball some are external, others internal. Melanotic or unpigmented sarcomata occasionally begin on the ciliary region, and extend along the surface of the cornea and sclera; and invasion of the eyeball by continuous infection by sarcomatous and cancerous tumours arising in the caruncle, or eyelids, or about the optic nerve behind the eyeball, is still less uncommon. But the most frequent external tumours are those which are called dermoid, and which consist of modified dermal tissue and fat, sometimes carrying a few hairs. They are seated on the sclera, but are only loosely attached to it; may be dissected off with facility, and do not return.

The common forms of intra-ocular tumour all fall under three heads—gliomas, sarcomas, and cancers. The distinction is merely based upon origin and anatomical structure; and they are all alike as regards what is surgically called malignity. Glioma is the malignant ocular growth of childhood; sarcoma and cancer appear in adults. A glioma is a soft vascular tumour originating in the neuroglia, the delicate interstitial connective tissue of nerve. A sarcoma is a tumour having for its type the common form of growing connective tissue, and differs anatomically from cancer chiefly in the presence of a true intercellular substance. A cancer is a tumour, the active elements of which are cells, referable to an epithelial type, and packed in the spaces of an areolated or alveolar stroma, without a true intercellular substance. According to Mr. Hulke's observations, sarcoma and cancer always originate in the choroid; and they may either be pigmented, wholly or in part, or pigmentless. The lecturer enlarged upon the progress of these malignant tumours, and upon the occasional difficulties of diagnosis, and concluded his address with a brief recapitulation of its principal topics.

THE LANCET.

LONDON: SATURDAY, AUGUST 6, 1870.

WHAT should be the fashion of the future Medical Council? The interest of any further attempts at medical reform turns upon the treatment of this question. It is evident that we shall have various attempts of the kind. Already two medical members of Parliament, Mr. BRADY and Dr. BREWER, have given notice of their intention to bring in Bills. The College of Physicians calls on its sister corporations to consider the question with a view to taking joint action. There are other private quarters from which a measure may be expected. And though the Government has failed this year, it will be far more able next year than it was this to bring in a measure that will improve medical education and satisfy the medical profession, so that for the next twenty years Parliament shall not be troubled with the subject. The Government must have noticed that the profession, though urgent, was only so on two points. These conceded, the Bill of Lord DE GREY would have been cheerfully accepted. It may be that the Government will feel now, not only at liberty, but compelled, to alter the composition of the Council, if it would really gratify its "ambition" of effecting medical reform. Hitherto it has shown no disposition to make this alteration. It has shown, indeed, no confidence in the corporations nor in the General Medical Council, for it proposed to subject all the deliberations of the individual corporations and of the General Council to the ultimate approval of the Privy Council. Nevertheless, the Government either had not the courage or had not the disposition to touch the right of the medical bodies to sit in the Medical Council. It left them all in Council as before. Some of them would have been completely superseded by the Bill becoming law—such as, for example, the Apothecaries' Companies of England and Ireland. No matter; there they were to remain for ever in the General Medical Council, taking up room and taking the fees as if they were still doing the work of the profession. On calmly reflecting on the way in which the late Bill left untouched the Medical Council, the only conclusion we can come to is that it meant to use that large and costly body in a sort of clerical way—to get it to prepare scheme after scheme till one was arrived at to please the Lords of the Privy Council or their medical adviser. Now there may be something to be said for making the Privy Council or its medical adviser the sole controller of medical education in the country, though there is far more to be said against it. But, at any rate, if this is to be done, let the General Medical Council be relieved of its duties altogether, and the clerical duty (which alone in that case would remain to be done) be done by clerks. In this way both the dignity and the money of the profession would be saved. But we are sure that Parliament will not hand over the power of constituting medical examining boards and rules for the conduct of examination to a Government department, however able its medical adviser. Both Parliament and the profession will consider that this power should be vested in a Council composed mainly of a few of the wisest and the best men in the profession. When once such a Council can be formed, its decisions should be authoritative—of the nature, not of recommendations, but of law—not subject to the confirmation of a Government department, but final.

This brings us back to the question with which we began: What should be the fashion of the future Medical Council? We shall try to answer this question for the help of all who are willing to assist in its parliamentary solution. We take two or three things for granted; and by so disposing of points on which opinion is agreed, we clear the way for an understanding upon those on which there is difference of opinion. The points we take for granted are—

First, *that the Crown should be amply represented* in any future Council. The necessity for this is obvious. The Crown represents the public and the public's deep interest in the efficiency of medical practitioners. The necessity is more obvious still if the Council is to have full and final powers apart from the Privy Council or any other department of Government. Some of the corporations that were in favour of direct representation were quite willing to grant it at the expense of Crown representatives, on the theory that the Crown had the power of confirmation or rejection of schemes. But such proposals are idle. The Crown, as the representative of the public, ought to be strongly represented. We should see nothing but good in giving not only its present proportion of medical representatives to the Crown, but a seat to the Home Secretary or the President of the Privy Council as the direct representative of Government.

Secondly, *the profession must be represented.* Even the Government must see that this is inevitable. It is not only that the profession maintains the Council, but that the Council keeps the Register, erases names, demands fees, and is a Council controlling interested bodies which are charged with testing the efficiency of all medical practitioners.

So much is clear. The only question of difficulty is the representation that should be accorded to the examining and teaching bodies. These, hitherto, have made up the Council quite predominantly. It is now plain to most people that the Medical Council exists mainly to regulate and control the medical bodies, and that any representation of these bodies in it should be entirely subordinate to the representation of the State on the one hand, and the profession on the other. The just interests of the medical corporations would be always sure of representation, inasmuch as even direct representatives of the profession and Crown nominees would certainly be honoured members of one or other of these corporations.

Mr. LOWE is entitled to the credit of having stated in the clearest way the faults of the present Council. It is made up, he said in a speech a year or two ago, too much of representatives of corporations; it does not represent the profession; it is very expensive in its working. Let us, then, in framing a new Council, while continuing the full proportion of Crown representation, reduce the number of the representatives of corporations by discontinuing the repre-

sentation of bodies that any adequate Medical Bill will supersede, and by linking together the remaining bodies, as Aberdeen and Edinburgh Universities are now linked; let us introduce direct representatives of the opinions and of the respect of the profession. Such a Council will be smaller, more efficient, more disinterested, and less expensive than the present; and under its influence the efficiency of examining boards and the public reputation of the profession will be secured.

THE temperature has been unusually high of late, and, from all that we can learn, this has not been without its effect upon the large body of troops composing the belligerent armies: several cases of heat apoplexy have occurred. The French soldier is, as a rule, better trained during times of peace than the English. At the commencement of a campaign he is able to march further, and he bears fatigue and accommodates himself to the circumstances of field service better. After English troops have been in the field a short time they become hard and capable of undergoing greater prolonged physical exertion, if only they are, hygienically speaking, well cared for. We suspect, also, that the average French is far more temperate in the use of alcohol than the British soldier. As Sir CHARLES NAPIER remarked, when he observed that so many of his soldiers died of heat apoplexy while he retained his vigour and health, "the sun found no ally of alcohol in *his* brains." Under a system of Imperial *régime* like that in France, we fail to obtain the information that we should do about our own troops on service. Official blunders and mismanagement are concealed. But the sickness and mortality among the enormous French force, massed together in and around the great strongholds at their base of operations, have hitherto been small; and nothing impresses us more with the energy and power of the French as a military nation than the fact that the Emperor has been enabled to marshal such a vast concourse of soldiers from different parts of the empire and concentrate them on a given spot with so little loss of life. The Frenchman is a born soldier. As a child he loves to mimic the arts of war; and as a man he pants for military glory. No one can look at the dress adopted in French schools and institutions without perceiving how much the military spirit underlies the French national character. He retains to this day the character that CÆSAR (whose testimony is very favourable to his soldierlike qualities) gave him—viz., impetuosity in the onset, want of constancy and perseverance in conflict, elasticity or ready recoil after discomfiture. But it is from their power to accommodate themselves to camp-life, and to utilise to the utmost every available resource, that the French are so fitted to take the field on any emergency. If we had marched, or conveyed by railway and other vehicles, an army composed of several hundred thousand men during the present hot season, it is scarcely too much to say that we should have had a large amount of sickness and mortality resulting from the exposure of our troops to the heat alone. According to the last Army Medical Blue-book, there were 285 admissions and 102 deaths from insolatio in the year 1868 in Bengal, or in the proportion of 3·13 deaths per 1000. Of course there is a wide difference between the climate of India and that of France. Even in this country, however, a few regiments are not marched to Aldershot without some loss of life. The 1st battalion 6th, and 38th Regiments, when *en route* for the little expedition to the Hazara country, suffered very severely from exposure to the sun, one-third of all the admissions during the year having been furnished by these two regiments alone. The short and decisive operations which followed gave rise to very little sickness and no casualties of war among the European troops. In the forced marches, however, undertaken during the hot weather of August to reach the rendezvous Abbottabad, the 6th Regiment had 46 cases of sunstroke and 7 deaths, and the 38th Regiment 41 cases and 6 deaths; whilst the 19th Regiment on the same occasion marched a distance of sixty-three miles in three consecutive days without a single case of heat-apoplexy, and three batteries of Artillery enjoyed a like immunity. The 6th Regiment was composed of younger and less trained men, and we have been told that they knew of their destined march some time before starting, and employed the interval in leave-taking, with the attendant disadvantages of much intemperance.

The Franco-Prussian war has, however, only just commenced, and the success of either side will probably depend quite as much upon the absence of disease as upon the arms of precision and the artillery. Diarrhœa, cholera, typhoid fever, typhus, scurvy, and dysentery are the diseases incidental to armies in the field, and the occurrence of one or other of these in an epidemic form must prove most disastrous to either side, and particularly to the French. It is probable that we may exclude typhus fever from the list, for this disease is far more likely to ensue when the season is cold, the overcrowding great, and the commissariat supplies are inadequate. There is no doubt that the wide-spread prevalence of typhus amongst the French towards the end of the Crimean war materially influenced NAPOLEON in his desire to secure peace. Cases of diarrhœa, cholera, or typhoid fever can scarcely fail to appear at this season, and the gravity of these diseases will of course depend upon the extent of their prevalence. If, however, battles and forced marches follow one another in rapid succession, the armies will avoid the dangers connected with standing camps, and the sick and wounded will have to encounter those arising from an insufficient or imperfect ambulance system, overcrowded and ill-ventilated hospitals, or exposure to the vicissitudes of weather, alternations of temperature, and rain on the field. The absence of typhoid fever will greatly depend upon the sufficiency and purity of the water-supply, and the presence of good sanitary arrangements for securing cleanliness in the various camps and garrisons, as freedom from scurvy and dysentery will be mainly connected with the quantity and quality of the rations issued. Dysentery and the malarious type of disease may be anticipated, if the troops be exposed to heavy rainfalls on the march or field of battle; to which we may add, in the case of those wounded, tetanus, if they have the misfortune to be exposed on the battle-field to alternations of temperature and damp. The first NAPOLEON crossed Nieman, in the Russian campaign, with 50,000 men, and 20,000 only recrossed it. The third NAPOLEON will cross the Rhine with a force com-

pared with which his uncle's was insignificant. The result can hardly be similar now, considering the differences of season and climate; but the difficulties of the campaign and the sickness will increase the longer the war is continued and the further it is removed from the base of operations. The varying proportions of *sick* to *well* of troops in the field during the Peninsular War in the English army are well known; and more recent wars have not shown much decrease in this respect among European troops.

In another article we hope to dwell upon the relation of sick transport and nursing and of the medical services to the modern system of warfare; upon hospitals in reference to field service, with the utilisation of railroads and public and private buildings for the removal and reception of the wounded. The dangers increase vastly in proportion to the number of wounded aggregated together; and these dangers are only to be overcome by the most ample ventilation—such as the removal of all doors and windows from buildings temporarily used by, but never intended for, the reception of wounded men.

Both powers have signed the Geneva Convention Treaty. The hospitals, the ambulances, and their *personnel* will be protected and respected as neutrals; and there is, on both sides, a philanthropic spirit apparent in all that concerns the interests of the sick and wounded. The military medical services will, doubtless, be supplemented by all the aid that the humane spirit of the age, in this respect, can supply; and if the campaign be conducted on the principles of the last great continental struggle—and we may be sure that no effort will be spared by NAPOLEON to secure decisive results as rapidly as possible,—the vast scale on which the campaign will be conducted will require all the medical and nursing aid that each country can secure for itself.

THE Second Report of the Rivers Pollution Commissioners has just been published. It contains a most exhaustive inquiry into the merits of the A. B. C. process; and if there be any value whatever in careful scientific investigation, the sooner the Company is put into liquidation the better it will be for the shareholders and the public generally. On the face of the proposal there was a certain plausibility which was exceedingly attractive. The public, now fully sensible of the folly of turning the débris of our food and bodily waste into our rivers and the sea, polluting them to an extent which made their condition destructive of public health and comfort, have been fascinated with a fiction that alum, blood, and clay possessed the charm of preventing contamination, and at the same time became the medium of restoring to the land those fertilising agents which had been extracted in the formation of our food. These illusions disappear under the scientific hand of Dr. FRANKLAND, who presents in the Report before us just such an experiment as we proposed in April last; and the investigation has been carried out with a skill which reflects the highest lustre upon the Commission of which he is a member.

The Commission commenced their investigations of the process at Leicester in 1868, before the specifications of the patent were completed. Their attention was consequently directed solely to the condition of the sewage and the effluent water. And here it is necessary to observe that the purification of sewage may be considered under two heads: first, the simple clarification by the removal of suspended matters; and, 2nd, the removal of matters in solution. The suspended matters have a tendency to undergo rapid putrefaction and to become exceedingly offensive, especially in warm weather. At Leicester, the effect of the A. B. C. process was to remove a considerable part, though not the whole, of these suspended matters; an average of 2·82 per 100,000 parts being still left behind, or more than double the quantity which is thought sufficient to pollute a stream. The effect upon the dissolved matters was to increase them, this result being due to the addition of soluble chemicals which were not precipitated at any part of the process. And as regards ammonia, which represents in a rough way the agricultural value of the sewage, it was discovered that more was contained in the effluent water than in the original sewage. Experiments were subsequently conducted in Leamington in 1869, but as the conditions were not considered favourable, a violent storm having occurred to disturb the usual sewage flow, it was arranged that a new series of observations should be made, and this took place on the 10th and 11th of May in the present year.

And here we may pause to admire the extreme accuracy of chemical research. In 1869 it was discovered that the effluent water contained less chlorine than the sewage; and as it was impossible to suppose that any portion was extracted by the A. B. C. process, it became obvious that some addition of pure water was made between the works and outlet. This was found to be the case. The effluent water was diluted to the extent of one-fourth by pure water derived from the river Leam.

We must refer our readers to the Report itself for the detailed account of the experiment. The results are as follows:—

1. The A. B. C. process removes a large proportion of the suspended impurities; but on no occasion has this removal been so complete as to render the effluent sewage admissible into running water.

2. The process removes a very small proportion of the soluble polluting matters from sewage. After treatment by this process, the effluent sewage is very little better than that which is obtained by allowing raw sewage to settle in subsidence tanks.

3. The manure obtained by this process has a very low market value, and cannot repay the cost of manufacture.

We omit to notice the objectionable features of the manufacture itself, because it must be admitted that the conditions at Leamington are not favourable; and, from what we saw at Hastings, we consider that it may be possible to conduct the process without the objections which have been made against it in the Report. The Commission observe, in conclusion, that it would obviously be rash to set any bounds to the possibilities of chemistry. Substances may, perhaps, be hereafter discovered capable of combining and rendering insoluble the filthy constituents of town drainage; but there appears to be no present hope that the foul matters dissolved in sewage will be precipitated and got rid

of by the application of chemicals to the offensive liquid. The chemical affinities of these foul matters are so feeble, and the matters themselves are dissolved in such enormous volumes of water, that their precipitation is a matter of extreme difficulty.

We regard the question of dealing with sewage as one of national importance. For some years past we have consistently advocated the principle that it should be restored to the land from which it was originally extracted in the form of food. We have more than once stated our belief that the time will come when sewage farming will occupy the van of agricultural progress, and when landowners and occupiers, instead of opposing, will go down on their knees for a sewer to be brought within their reach.

WE entreat the Poor-law Board to pause before the final adoption of the scheme proposed for the officering of the Fever and Small-pox Hospitals at Homerton and Stockwell. It is proposed, as we observed last week, to place each fever hospital, containing 180 beds, in charge of two resident medical officers; the senior at a salary of £400, and the junior at a salary of £100, per annum. The Poor-law Board propose to reduce the salary of the senior to £350, on the ground that the higher amount is insufficient to secure the services of medical men of good standing, and the lower enough to attract young men of ability and promise.

Now, we would observe that Mr. GATHORNE HARDY was pressed in the House of Commons upon this very point when these hospitals were first proposed, and a pledge was then given to the House that they should be officered on the plan of the voluntary institutions—by a resident and a visiting staff. Nor can we wonder at the persistence with which these views were pressed. To place 180 patients in the charge of two young men of promise would be to put upon them more responsibility than they could reasonably be expected to fulfil. The mechanical labour of visiting so many patients twice a day is in itself no light matter; but the labour will be much increased by the want of that wide experience which enables the physician to interpret disease without anxiety and waste of time. These young men will require to live in the wards to do their work with satisfaction and credit to themselves; and in doing so they will run great risk of infection, for it is well known that house-surgeons take fever far more frequently than members of the visiting staff, chiefly on this account. Moreover, all experience is in favour of the ordinary plan. The visiting physicians are selected from the higher branch of the profession; they have to that extent a more exalted sense of the responsibilities they undertake, because their reputation and honour are at stake. They come to the institution fresh from a residence in non-infected air, and from associations less depressing than those in connexion with a fever hospital; they give directions which relieve the resident of the greater part of his anxiety and responsibility, and so curtail his liability to depressing influences, and of taking infection also. And when to these advantages is added a matured experience, the superiority of the arrangement becomes still more manifest.

But further: these hospitals will be the only institutions at which the student of medicine will be able to acquire a practical knowledge of fever and its treatment. Mr. HARDY took powers in his Bill to make them schools of clinical instruction, on the ground that the presence of pupils would prove the soundest and best guarantee of the work being well done. Publicity is the real safeguard against slovenly routine. Resident officers who have no one to look over them naturally fall into the easiest way of getting through their work; and even to a visiting staff the presence of pupils constitutes the best stimulus. But it would be absurd to propose that pupils should be instructed by promising young men; and we hold it to be therefore absolutely necessary that a staff capable of clinical teaching should be appointed.

We venture to suggest, in the last place, that this is a question deserving the attention of the Royal College of Physicians, whose Fellows and Members have hitherto enjoyed the monopoly of such appointments. It is to them that we owe so much of our knowledge of the varieties and treatment of fever; and it would be a professional calamity to refer its future investigation to any staff of lower standing. The post of physician to the Fever Hospital at Stockwell will not be less honourable than that which has been held by TWEEDIE, MURCHISON, BUCHANAN, and BROADBENT, at Islington; and the fact of its having a *honorarium* attached to it will not make it less desirable. We hope therefore that, mindful of their position as the protectors of their *alumni*, the College will represent to the Poor-law Board the desirableness of placing their new public hospitals in charge of a staff of consulting physicians of experience, in accordance with the practice which has so long and so satisfactorily prevailed.

Medical Annotations.

"Ne quid nimis."

THE BRITISH MEDICAL ASSOCIATION.

THE thirty-eighth annual meeting of this Association will be held at Newcastle-upon-Tyne during next week, under the presidency of Dr. Edward Charlton, senior physician to the Newcastle Infirmary. The first general meeting will be held on the evening of Tuesday, August 9th, in the lecture-room of the Literary and Philosophical Society, when Dr. Charlton will give an address. The Sheriff of Newcastle has invited the Association to breakfast in the new Town-hall on Wednesday morning; later in the day Dr. Sibson, F.R.S., will give an address in Medicine, and the President invites the Association to a *soirée* in the evening. On Thursday Dr. Heath, of Newcastle, will give an address in Surgery, and in the evening the public dinner of the Association will be held in the Town-hall. On Friday there will be the concluding general meeting, and in the afternoon there will be a special convocation of the University of Durham for granting honorary degrees; and, finally, a special service will be held in Durham Cathedral. On each of the last three days the sectional meetings for the reading of papers and discussion will be held, and already a good batch of papers has been announced, of which we propose to insert brief abstracts by the several authors. The sections will be six in number, and allotted to the following subjects—medicine, surgery, midwifery, physiology, public medicine, and psychology.

The annual museum and annual library will be arranged as in former years, and we trust means will be taken to prevent these collections from degenerating into mere personal puffs.

We observe that the Rev. Dr. Bell has given notice of a motion respecting the constitution of the Committee of Council, and that Dr. Styrap proposes to consider the question of the General Secretary's salary, which has crept up from £100 per annum to more than three times that sum, and which he proposes to fix at £250. Dr. Elliott has a proposition that a volume of Transactions be annually published, but does not appear to have any proposal for the raising of the necessary funds—a very important matter, since the *Journal* of the Association at present absorbs the whole of its income.

We notice by the way that the editorship of the *Journal* of the Association is about to become vacant, and that applications from candidates are requested. The Association appears to "expend" its editors very rapidly, though we are not surprised that Mr. Jonathan Hutchinson should have found editorial labours incompatible with the multifarious duties in which he is engaged. Whilst the Association pays its editor less than the salary of its general secretary, and at every annual meeting demurs to the sums paid to the editorial staff, we are not surprised that the thankless office of servant to many masters is constantly vacated.

THE PUBLIC HEALTH.

THE Registrar-General's Quarterly Return, which up to the beginning of this year was a meagre and unsatisfactory production, may, in its present form, challenge comparison with any return of its kind in the world. Increased from 34 to 82 pages, it is now a perfect mine of information, invaluable for sanitary purposes and most interesting to the student of epidemic diseases. Of course we speak in reference to diseases which are fatal, those being the only ones recorded as yet. If we had, as it is to be hoped we shall have eventually, a corresponding return for non-fatal diseases, preventive medicine would be supplied with all it could desire in the way of statistical information. As it is, there is an immense gain in knowing how the leading types of epidemic disease have been localised during the past quarter, by comparison with having to wait until 1871 before knowing how the fatality of such diseases was distributed in 1869. It is satisfactory to feel that we have thus made real progress in respect of the knowledge about the existence of disease. We fear the Registrar-General's figures will be taken as proof that knowledge is not always power. The wide-spread prevalence of scarlet fever, not in towns only, but in rural districts also, causing in not a few instances the really shocking proportion of one-third the gross mortality, reminds us that for the prevention and limitation of one destructive epidemic means thoroughly efficacious have yet to be discovered. Measles, whooping-cough, fever, diarrhœa, diphtheria, and small-pox are fairly under the control of medicine, and the fact that they carry off so many persons as we find indicated in the return, is conclusive in regard to defective sanitation or the neglect of the obvious precautionary remedies.

Some of the facts disclosed in the return are so remarkable as to warrant the doubt whether they can have been accurately tabulated by the registrars. It has to be borne in mind that these officers are probably new to the work of classifying from the medical certificates the causes of death under the several headings required in the return. Therefore a few mistakes would not be very surprising, although it may be assumed that in some of the more startling examples of excessive fatality inquiries have been made before the figures were finally adopted. In the town of Blaenavon, in Monmouthshire, the total deaths in the quarter were 143, and of these 64 are said to have been caused by measles, 10 from fever, and 6 from whooping-cough; the registrar explains that there have been nearly 600 cases of measles in the town, scarcely a house having escaped. The alleged fatality of small-pox in the Durham, Guisbro', Barnsley, Dewsbury, and other unions of Yorkshire and Lancashire, will no doubt lead to further investigation. The inspectors of the Privy Council will find in the return abundant proof that their posts are not likely to become sinecures just yet.

MEDICAL OFFICERS' SUPERANNUATION BILL.

THIS Bill has passed. The Lords' amendment has been only partially adopted. It will be required that the Poor-law inspector of the district, or some person authorised by the Poor-law Board, shall first certify that the medical officer is incapable of performing the duties of his office with efficiency, but that part is expunged which made it necessary that he should also have ceased to carry on private practice.

On the return of the Bill to the House of Lords, Lord Redesdale made a feeble and ineffectual attempt to restore the Lords' amendment in full. We cannot but suppose that his real intention was to frustrate the object of the Bill.

It was obviously impossible for an inspector to make any inquiries or stipulation concerning private practice, nor is it in the power of guardians to insist upon its discontinuance. It is nothing to them if the public continue to employ men who are no longer fit for public service; but their duty is to discard inefficient officers from attendance on the poor. Certain legislators, Lord Redesdale amongst them, appear to have about the same mental capacity as guardians, and, like them, are always ready to oppose the just remuneration of medical men. But we are happy to think that they are a minority, and that they have not succeeded in emasculating the Bill.

As this is probably the last occasion on which we shall be called upon to notice the subject, we must again acknowledge the great zeal and persevering efforts of Mr. Brady. The present Bill is, we believe, better than the one passed last year. Mr. Brady has endured a great deal of personal annoyance, especially in relation to this amendment; and we again offer him the thanks of the profession for the result he has obtained.

QUEEN'S HOSPITAL, BIRMINGHAM.

EIGHTEEN months of that excellent organisation, the Committee of the Working Men's Fund for the Extension of the Queen's Hospital, form a history admirable in itself, and worthy of imitation in all our great centres of industry. The amount received by the Committee up to this date is £2878 3*s.* 9*d.*, of which only £729 15*s.* 4½*d.* has not been paid by working men. Large as the above total is, the Committee feel confident that the number of artisan subscribers to the Fund will largely increase, if masters will testify approval of the provident work by affording facilities for the appeal to circulate in their establishments, and by encouraging amongst their *employés* the methodical weekly collection of small subscriptions. This plan, indeed, has already been adopted by many masters, between whom and their workpeople a most salutary spirit of co-operation for mutual benefit has arisen; while the workpeople themselves have so caught the philanthropic inspiration that the bye-law by which the Committee have power to add to their number has been utilised till they now include 449 members. The weekly committee meetings, at which the collectors of subscriptions compare notes and report progress, are looked

forward to with actual zest, while these house-to-house applicants are unanimous in asserting that the weekly pence and halfpence are cheerfully contributed by the poorest persons, and that, if the neighbourhoods mainly occupied by the labouring classes are regularly canvassed by voluntary collectors, an average of £50 per week may, at a low estimate, be calculated upon. "To relieve deserving persons, check the evil of indiscriminate charity, and foster feelings of self-dependence," are some of the anticipated results of the movement which have already been attained; and the spirit and energy of the Birmingham working men fairly entitle them to their claim "to be admitted to co-operation in an endeavour to restrict the growth of pauperism which is fostered by indiscriminate charity and is conceded to be a matter not only of local but of national concern." The working men pitch their aims high; but it will, of course, be seen to that their share of the hospital they are so instrumental in enlarging will not be encroached upon by those persons in well-to-do circumstances, who (they rightly maintain) usurp the benefits which ought to be reserved for the really meritorious claimants. The admission of such persons into hospitals is but another form of that indiscriminate charity against which the working men are so gallantly contending; and we hope the Queen's Hospital will exemplify in the bestowal of its funds the same judgment which has been displayed in their collection.

CASUALTIES IN BATTLES.

IT is generally stated that the proportion of casualties to combatants has gradually diminished since the introduction of the improved weapons of recent years; and the losses at Austerlitz, Wagram, and Moskowa, as compared with those of Magenta, Solferino, and Königratz, are cited in illustration. In the course of the discussion in the House of Lords in 1868 upon the use of explosive bullets in war, the Earl of Malmesbury quoted ratios that he had received from a French officer connected with the French War Office, to the same effect. Professor Longmore, in the appendix to his "Treatise on Ambulances," remarks, in discussing this subject, that these statistics, and the deductions drawn from them, are, to say the least, very incomplete, and in some respects calculated to mislead. They show the proportion of casualties, not to the troops actually engaged, but to the strength of the whole army of which the troops engaged formed a part. The number of troops, too, brought on the field in some battles is comparatively limited, so that they are all actually engaged in the conflict perhaps for several consecutive hours. The 24,000 British troops at Waterloo, for example, were all exposed to fire, and a large proportion of them were in repeated close conflict with the enemy. Hence the very large ratio of casualties in that battle as compared with that of Königratz. At the present day the facilities of rapidly concentrating troops and their *matériel* are immensely increased. Such armies as were opposed to each other at Solferino and Königratz present numbers so enormous—in the former instance 298,358, in the latter 427,100, men under arms being said to have been brought together—that it becomes impossible for all the troops to be engaged in battle. Professor Longmore follows out the subject in detail; but it is clear, as he says, that no deductions as to the qualities of the weapons employed on the different occasions referred to can be drawn from such calculations. Montigny's *mitrailleuse*, which was brought over long ago to this country, has been immensely improved. It is said that the French have succeeded in improving this engine to such a degree that it is capable of firing between four and five hundred bullets in a minute. If such be the case, we can understand the effect it would have upon a column or detachment of men. It appears to have been tried at the taking of Saarbruck, and the result to the Prussians is said to have been calamitous. The necessity for avoiding the "open" is greater than ever, and we may expect a good deal of fighting at long ranges. The inquiry as to the absolute and relative number of men placed *hors de combat* in a given time is obviously an important element of inquiry in laying down rules for the amount of transport, medical and surgical appliances, and the proportion of medical officers necessary to meet the requirements of a large army in a general action.

CAPPING DAY AT EDINBURGH.

THIS occasion, which, in spite of the diminished lustre of Modern Athens, still possesses a more than provincial importance, derived additional interest from the presence of Dr. H. W. Acland and Professor Max Müller, of Oxford, and the bestowal on these *savants* of the degree of Doctor of Laws. After the degrees in medicine had been conferred, Dr. Laycock, as promoter of the Faculty, addressed the graduates, and dwelt with much force and effect on the need for a more general knowledge of the laws of health—knowledge which would make the public intelligent co-operators with the profession, and arrest at their source such mischievous fallacies as those embodied in the organised resistance to vaccination and the Contagious Diseases Acts. Repelling the common charge that "no infidel could desire a better channel for the insinuation of scepticism than the lecture-room of anatomy," Dr. Laycock urged with great cogency that a thorough knowledge of the laws of life and organisation not only quells real materialism, but brings into brilliant clearness many passages of Scripture, "which are so full of truth that they are dark with excess of light." He concluded by citing Sir J. Y. Simpson and Sir James Clark as examples of the highest culture in material and medical philosophy being quite compatible with the fullest acceptance of revealed truth. The address was well adapted to the occasion, and in every respect worthy of a physician who has always striven to establish medicine on a philosophical as well as philanthropic basis.

THE METROPOLITAN POLICE.

THE annual circular, containing a report of the sickness of the police force during the past year, has just been sent to the several divisional surgeons by Mr. Holmes, the surgeon-in-chief. From it we are glad to learn that the rate of sickness steadily diminishes from year to year, the average daily percentage of sick of all kinds having been 3·6, or, deducting the detached men, the percentage was only 2·8, the mean strength of the force being 8621. The experience of the City police shows that a great diminution may be effected in the daily sick list if each man who is incapable of doing his day's duty could be compelled to go into hospital. The propriety of founding a central hospital for the reception of the cases which come before the chief surgeon, having been over twenty-eight days sick, and of other cases of urgency, has long been under consideration. It would involve an increase of expense on the medical service, which now is managed very cheaply, but it would no doubt contribute to the efficiency of the force, and to the detection of skulkers and malingerers.

Twenty-four men were reported as suffering from venereal diseases, and were consequently struck off pay during sickness, in the course of the past year. This does not of course represent the prevalence of such diseases in the force, but only the number of cases too severe to be concealed. It is hoped, however, that the abuse of charity which used to

prevail, from police-constables attending as out-patients at hospitals and dispensaries when suffering under diseases the effect of their own misconduct, has been at least much checked by the regulation above alluded to.

The total number of men injured in the service during the year was 1145. It appears that in the summer the police are more obnoxious to injury, the period of the fashionable "season" being the one in which the greater number of injuries take place, as the following return will show:—"January, 86; February, 80; March, 85; April, 114; May, 129; June, 108; July, 106; August, 107; September, 96; October, 71; November, 79; December, 84."

The death return comprises an unusual number of fatalities from violence, among them being two instances of suicide and one of "found drowned." The total number of deaths was 45, or ·53 per cent. on the whole force.

During the year 240 men were recommended for pension on account of medical unfitness for the service. Of these 55 were suffering from rheumatism, 28 from phthisis, 25 from injury and its results, 25 from debility, 17 from bronchitis, 15 from defective vision, and 11 from disease of the heart.

POOR-LAW MEDICAL REFORM.

WE have reason to believe that it is the intention of Mr. Brady, M.P., to introduce a Bill next session for the purpose of severing the existing relation between the medical service of the poor and boards of guardians, and to concentrate in a special medical staff those sanitary and social services which are now performed in Ireland by the dispensary staff. Mr. Brady will have the assistance of one of the most distinguished members of the House of Peers, and he will be thankful to receive from any gentleman statistics on the relation which exists between neglected sickness and excessive pauperism, or descriptions of the public medical service in foreign countries. We have every sympathy with the proposal of the right honourable member. We are tired of guardians as masters, and have long ceased to have confidence in the Poor-law Board. New masters cannot be worse; and as the subject is ripe for reform, we wish Mr. Brady's project success. It would, indeed, be an important step to place the superintendence of public hygiene in proper hands, and we believe that to do so would be to effect a certain and immediate economy both in money and in health.

"HOMOGENY" AND "HOMOPLASY" VERSUS "HOMOLOGY."

THAT long cherished word "homology" has at length found two formidable rivals in certain terms recently put forward by Mr. E. Ray Lankester, in the *Annals and Magazine of Natural History*. Mr. Lankester does not object to the employment of the word in question by those who may yet cling to the theory of an "archetype," but very rightly stigmatises as an inconsistency its use by those who show by their writings, if not by their speech, that they are disciples of a new philosophy, whose creed is "evolution," and among whose teachers are such men as Darwin and Herbert Spencer.

While the Platonist understands by the term *homologue*, "the same organ in different animals, under every variety of form and function," the orthodox evolutionist, borrowing the language of heresy, would employ it in the comparison of a more or less specialised organ—be it a subclavius muscle, or a quadrate bone—in two or more animals which have presumably sprung from a common ancestor who possessed the organ in question, but in a more generalised or simple form. Structures thus related should, according to Mr. Lankester, be termed *homogenous*—rather an awkward word as it is so like "homogeneous," "We may trace an *homogeny* between them, and speak of one as the *homogen* of the other."

With regard to that peculiar antero-posterior correspondence of certain organs (upon which an American professor has founded much speculation), which we may conveniently term "fore-and-aft symmetry," but which has been known of late under the name of "serial homology," this, in that it has been brought about by the subjection of the organs to similar or identical conditions of existence, to the influence of a like force, or "environment," is termed by Mr. Lankester "*homoplasy*." Such organs are *homoplasts* of one another.

From this it is obvious that any two or more organs may be both *homogens* and *homoplasts*, or *homoplasts* only, of one another, seeing that homoplasy "includes all cases of close resemblance of form which are not traceable to homogeny, all *details* of agreement not homogenous, in structures which are broadly homogenous, as well as in structures having no genetic affinity."

Finally, the word "analogy," in that it relates only to *functional* similarity of organs, will not be supplanted, as is its old antithesis "homology," by any new expressions which "Græco fonte cadunt, parce detorta."

We would ask those who, in a spirit of conservatism, may be disposed to object to any "radical cure" of anatomical nomenclature, to call to mind the words of the bard of Venusia—

> "Dixeris egregie, notum si callida verbum
> Reddiderit junctura novum."

BRITISH HOSPITAL FOR DISEASES OF THE SKIN.

IT would seem that this so-called hospital, which we described as a very second-rate dispensary in Great Marlborough-street, has a branch establishment at 13A, Finsbury-circus. On Thursday, the 27th ult., Mr. Balmanno Squire, one of the surgeons, was summoned for an assault by a patient named Turner, who complained that he was forcibly discharged because he had failed to contribute to the funds of the institution. According to the evidence of the physician and of a young lady who undertakes the multifarious occupations of dispenser, porter, collector of fees, &c., all the applicants are questioned as to their circumstances, and requested to pay one shilling a week, or five shillings a month, according to their means. The complainant represented himself as a lawyer's clerk out of employment. The young lady said that he had promised to pay a shilling a week, but had not done so. There can be no doubt he was discharged on that account; and as he objected with improper vehemence, a policeman was sent for to turn him out. A tabacconist, who stated that he had willingly paid his five shillings, gave evidence in favour of Mr. Squire, and the case was dismissed with costs.

No professional man can read an account of these proceedings without a painful sense of the false position in which the medical staff of a charitable, institution ostensibly supported by voluntary contributions, are necessarily placed by having to enforce a demand so anomalous as that above described. There is about the transaction a sort of pretence of charity of which the medical profession ought to be ashamed to be agents. They ask for subscriptions in the name of the poor whom they invite within their doors with the offer of gratuitous relief; and when patients are obtained, inquiries are made into their circumstances with the object of enforcing contributions to the funds of the "hospital." The public are always ready to attribute motives even where they do not exist; and this after-demand looks as if the real object were to carry on this

high-sounding institution at as small an expenditure of charity as possible. We have already said that there is but little excuse for the multiplication of institutions giving gratuitous medical advice, and there is none whatever for these hybrids between business and charity. The patients have a valid plea for refusing to pay towards what appear to be free institutions, and we sincerely pity the physician who has to call in a policeman to enforce this paltry scale of payment. How can he discriminate? or how can he trust in the discrimination of his female coadjutor? Both must expect to be deceived. Both must often be in the wrong. The arrangement is utterly derogatory to the profession, and ought to be emphatically condemned.

THE CENSUS OF 1871.

WE take leave to express our opinion that the Government have done unwisely in refusing to extend the scope of inquiry at the Census next year beyond the narrow limits prescribed ten years ago. Four very important heads of inquiry have been urged upon the Home Secretary for incorporation in the Census Bill for England—viz., house accommodation, marriages of cousins, distribution of occupations, and the enumeration of lunatics and idiots not in asylums or under the cognisance of the Lunacy Commissioners. Mr. Bruce declined to accept two of these suggestions, while the third was negatived by the House of Commons, the last only being adopted, so that we shall now have for the first time a return of the total number of persons of unsound mind in the kingdom. The questions of house accommodation and of the distribution of occupations are so intimately associated with sanitary and medical considerations that it is hard to understand how Mr. Bruce's objections could have been sustained by the House of Commons. Sir John Lubbock's motion to add an inquiry in the enumeration schedule whether persons were married to first cousins was understood to have been prompted by so distinguished an authority as Mr. Darwin; and it is to be regretted that, although Mr. Bruce was disposed to fall in with the idea, it was rejected by the House on, as we venture to think, most unsubstantial grounds. When we read that in the sixth century it was one of the instructions given by Pope Gregory to Augustine, whom he sent to evangelise Britain, that "first and second cousins had better not marry, because experience had shown that such unions were unfruitful," we cannot but regret that an opportunity to lay the basis for a comprehensive investigation of this interesting question has been thrown aside for another ten years.

DISTRIBUTION OF PRIZES AT THE ACADEMY OF SCIENCES OF PARIS.

WHEN it is recollected that workers in natural and medical science look forward with much anxiety to the rewards offered by this Academy, and how secure *bonâ fide* cultivators of our art may feel that their labours will be worthily recognised, we may rest assured that this distribution is a powerful incentive to patient investigation and research.

We perceive that this year the committees have withheld the prizes from only two questions—one on the applications of electricity to therapeutics, and the other on the cure of cholera. No surprise is to be felt as regards the latter; but we are sorry to find the former a weak point. Very handsome pecuniary recognitions have, however, been awarded in both cases, especially to Fauvel for his book on the Etiology and Prophylaxis of Cholera, he having received £200.

The Statistical prize has been obtained by M. Chenu, the accomplished author of the "Medico-Chirurgical Statistics of the Campaign of Italy in 1859–60."—Medicine and Surgery: M. Junod, for his works on Hæmospasia, £100. M. Luschka, of Tubingen, for his book on Topographical Anatomy, £80. MM. Paulet and Sarazin, for their treatise on the same subject, £80. Dr. H. Roger, for his Clinical Remarks on Chorea in Children, £60. M. Maurin, for his book on Typhus among the Arabs, £60. M. Knoch, of St. Petersburg, for his work on the Bothriocephalus Magnus, and M. Saint Cyr, for his researches on Tinea Favosa among Domestic Animals, £40 each. It is remarkable that no purely *surgical* book has been found worthy of a reward.

Investigations and proposals to prevent the evil effects of certain unhealthy trades: — M. Pimont, for his Plastic Calorifuge, £100. M. Charrière, for his Apparatus for saving shipwrecked crews. The Cuvier prize has been awarded to the celebrated Ehrenberg, of Berlin, upon whom a very high encomium is passed by the Committee. It will be recollected that this prize has successively been awarded to such men as Agassiz, John Müller, Richard Owen, Murchison, and Baer. The Barbier prize has been divided between M. Mirault, of Angers, for his essay on the temporary Surgical Occlusion of the Lids in the treatment of Ectropion arising from a Cicatrix, and Dr. Stilling, of Cassel, for the improvements introduced by him in ovariotomy. The fame of those improvements has not reached us. The Godard prize has been presented to the celebrated Hyrtl, of Vienna, for his researches on the Genito-Urinary Organs of Fishes.

The *Gazette Hebdomadaire* of July 22nd, 1870, gives a very complete list of the subjects proposed for the years 1870 to 1873, together with the manner in which the essays or books are to be sent. Why do we not see more British names in the list of rewards?

CONFLICTING MEDICAL EVIDENCE.

WE are not of the number who think too severely of differences of argument from the same medical facts. Medical facts are sometimes difficult of construction; and it is but right, in the interest of all parties in forensic cases, that this difficulty should be admitted and allowed for. But there is a limit to everything, and there is a limit to fair differences in medical testimony, beyond which discrepancy of evidence becomes unseemly and injurious to the reputation of the witnesses, if not of the medical profession. This fair limit seems to have been exceeded in a case at the Durham Assizes, the account of which, in the local papers, has reached us.

Mr. Edward Jackson, a surgeon in Darlington, was sent for to see a patient of his. On his arrival he found the patient in his own sitting-room, dead. The apartment was in a disordered state. A great quantity of blood was spilled over his coat, and on the carpet and curtains. A stick was lying near, covered with blood, and having hair upon it. There were three wounds upon the head, and some bruises on the body. The police were summoned, and an inquest and post-mortem followed. At the post-mortem the following appearances were found. Three or four recent bruises on the ulnar surface of the left arm and hand; one on the left thigh, and one on each ankle. There were three straight contused wounds of the scalp, not penetrating to the bone or vertex of the skull. There was effusion of blood between the scalp and calvaria. On removing the latter there was an effusion of serum on the surface of the brain to the extent of two or three ounces. The membranes were healthy; the brain pale and bloodless; the sinuses and vessels empty. The heart was contracted, with all its cavities perfectly empty; fat was deposited on its surface; its structure was also fatty. There was slight atheroma of

the aorta; the lungs were collapsed; the liver pale and fatty; the kidneys slightly congested.

Mr. Jackson gave evidence to this effect. He attributed death to hæmorrhage, and stated that the wounds could not have been self-inflicted. He was confirmed in his statements by Mr. Arrowsmith, who assisted him in the post-mortem, and agreed with him as to the cause of death. Clearly it would not take much hæmorrhage to kill a man so unsound in various vital parts, especially if the hæmorrhage were associated with violent treatment. The wounds and the hæmorrhage described were clearly suggestive of such treatment, and unfortunately there was evidence concerning the wife's behaviour to her husband consistent with the theory that she had inflicted the wounds. The jury took this view of facts which appear to us very palpable, and sentenced the wife to ten years' penal servitude.

The trial was signalised by, as we think, an unfortunate exhibition of conflicting medical evidence. Two medical men, Dr. Arthur S. Donkin, and Mr. John Jobson, of Bishop Auckland, who had never seen either the man or his wounds, gave evidence for the prisoner, and attributed the death to natural causes. It becomes a fine question what Dr. Donkin and Mr. Jobson consider natural causes; but there seems no room for doubting that the jury, and the medical men who saw the patient and made the post-mortem, were right in supposing that blows and hæmorrhage had caused death, and that the evidence of Dr. Donkin and Mr. Jobson was beyond the fair charity that is justified by scientific doubt.

THE PANCREAS IN FISHES.

VERY imperfect, to judge from the vague descriptions given in works on Comparative Anatomy, seems to have been, until recently, our knowledge regarding the nature and varieties of the pancreas in fishes. Now, however, some addition to our knowledge, or rather enlightenment of our ignorance, has been furnished by M. Legouis, in a paper on the Pancreas in Osseous Fishes, a translation of which, from the *Comptes Rendus*, appears in a recent number of the *Annals and Magazine of Natural History*.

The so-called "pyloric appendages" had been generally supposed to subserve in some way or other the functions of a pancreas, until it was observed that they coexisted in certain fishes—e. g., the trout—with this organ, and could not, therefore, be homologous with it. Furthermore, certain ducts—"Weber's canals"—running from the liver to the intestine in company with the biliary channels, were believed to be carriers of the pancreatic secretion; their seeming origin leading Weber to suppose that the liver fulfilled a double function, an hypothesis rejected by Claude Bernard.

According to M. Legouis, besides the Plagiostomes—viz., the sharks and rays, which have a pancreas similar to that of other vertebrates,—all osseous fishes possess some representative of this organ, however variable it may be in form and position.

Three forms are described:—

1. *Disseminated*, found in the barbel, loach, and lump-fish, consisting of glandular lobules dispersed through the laminæ of peritoneum.

2. *Diffused*.—This form, which resembles the pancreas of the rabbit, occupies the interstices of the viscera, and is found in the conger, gurnard, stickleback, and others.

3. *Massive*, resembling the organ in higher vertebrates; such occurs in the pike, eel, and Silurus.

The ducts of the first two forms are the afore-mentioned "Weber's canals." Their course, which is not well defined, terminates at the duodenum, in the neighbourhood of the gall-ducts. The apparent extension of the pancreas into the liver, which was the cause of Weber's faulty conclusion, may be accounted for by the fact that the development of these two organs still goes on in the adult fish.

To any who are striving to find in higher vertebrates bodies homologous with the pyloric appendages of fishes, we may suggest that the glands of Brunner, which are so well developed in some mammals—e. g., the mole and shrew, may be possibly truly represented by the follicles which stud the lining of these saccular organs.

BURNT TO DEATH.

THE lamentable catastrophe which happened quite lately in the Waterloo-road, whereby six little children were burnt to death within a hundred yards of a fire-engine station, directs our attention in the most forcible manner to the danger attendant on sleeping in the upper parts of London houses that are unprovided with means of escape. Reliance on assistance from without is, in a large proportion of fires, disastrous, either from delay in bringing to bear the mechanical appliances of the Fire Brigade, or from the inefficiency of those appliances when attempted to be used. At the annual meeting of the Royal Society for the Protection of Life from Fire, held last week, the Lord Mayor, speaking of two fire-escapes which were then being exhibited in Guildhall-yard, said "they looked so tempting that it would be worth while being for a few minutes in a burning room to have the pleasure of sliding down them." We hope his Lordship will never have the opportunity he seems to desire; he might find that "the comfort of having one of the machines" outside his window would be lessened by the discovery that its arrival was just too late to be available, or that it was out of order and wouldn't work efficiently, or that it couldn't come near enough for fear of catching fire. If there were a thoroughly efficient fire-escape in every street or so the chances of life-loss would, of course, be greatly diminished; but not until every house is provided with its own means of escape will the danger from fire be reduced to a minimum. Of course this ought in all cases to be a matter of structural arrangement, and it may be hoped that some day stringent building regulations will prevent builders from constructing dwellings on the principle of a trap. Meanwhile we have thought it desirable to ascertain the opinion of Captain Shaw as to the best invention for escaping from a high window when a house is on fire. His official answer we are justified in making public property; he says—"I regret to say that I know of none really trustworthy. . . . For myself I should take care to provide a light chain ladder to be kept in a top room." The truth is that every floor ought to have its means of egress, for it is too often in the attempt to get from one floor to another that lives are lost. How to put the metropolis in a better state of defence against loss of life by fire than now obtains, is a problem the solution of which is a pressing need.

POOR-LAW DISPENSARIES IN LONDON.

WE are at length promised some definite action on the part of the Poor-law Board. On Tuesday last Sir Matthew Hicks Beach asked the President of the Poor-law Board if he would issue any general instructions or regulations to dispensary committees, or boards of guardians, with the view to secure a uniform and efficient dispensary system throughout the metropolis: first, as to the classes entitled to gratuitous medical relief; secondly, as to the area and pauper population to be attached to each dispensary; thirdly, as to the requisite accommodation and furniture at each dispensary, and the number, duties, and remuneration of the medical and other officers, and whether care

would be taken to secure a registration of the various diseases, and the treatment adopted. Mr. Goschen replied that no general regulations would be issued as to the classes entitled to gratuitous medical relief. They would be the same classes as were now entitled to out-door relief. The area and pauper population attached to each dispensary had been and would be fixed according to the varying circumstances of each particular union. As to the third question, the Poor-law Board insisted upon proper accommodation and furniture for each dispensary, and the regulations in these respects had been agreed to by the boards of guardians. General regulations would be issued with regard to the conduct of business, the attendance of the medical officers, and so forth, and care would be taken to have the several diseases and their treatment registered.

We have only to remark that Mr. Goschen preserved an ominous silence as to the duties and remuneration of the officers; but it is satisfactory that regulations are forthcoming on other important points. This, at least, is something gained.

WHO IS TO BLAME?

WE have expressed our satisfaction that the Medical Bill has not become law, and we have acknowledged our obligations, and those of the profession, to the gentlemen in the House of Commons who perceived the poor and emasculated nature of the measure that came down from the House of Lords. Still we cannot but ask who is to blame for the fact that the Government did not perceive till it was too late the impossibility of passing the Bill, and the real intensity and amount of objection to it in the profession? Mr. Forster said in an innocent tone, in withdrawing the Bill, that "there was a desire in some quarters that the Bill should embrace the question of the constitution of the Council, but that it would be impossible to deal with that question at this period of the session." We cannot help thinking that the loyalty of some of the representatives of medical constituencies to the interests of the profession was either defective or late. There are men in every Parliament who are only anxious to please the Government, and who do not care much for the wishes of their constituents, unless they happen to fall in with the plans and views of the Ministry. It is only by reference to the conduct of such members that we can explain Mr. Forster's not finding out till the 25th of July that it was the wish of some parties to deal with the question of the Medical Council.

Believing as we do that this question might have been settled this year, we cannot but ask, Who is to blame? Some one, or more, more or less prominent quasi-medical representatives, must have acted inefficiently or unfaithfully at a critical moment, to explain the unsuccess of a Ministerial Bill, and the unsatisfactory result of an agitation which has affected the whole profession. It is our pleasure at election times to help the return of men who, we think, will well represent the profession. It is our duty to be faithful critics of their conduct on those rare occasions when medical matters of high moment are discussed in Parliament.

VACCINATION AT LISKEARD.

WE commend to the notice of the Medical Department of the Privy Council the state of vaccination in the Liskeard Union. We learn that there are upwards of 500 unvaccinated children in the union, many of them three or four years old. At the last meeting of the board of guardians a long discussion took place, arising out of a second letter from the Poor-law Board in reference to the complaints by Mr. Angus Mackintosh, medical officer of the Callington district, as to the alleged laxity of the guardians in enforcing vaccination, he having been informed that the guardians had decided not to prosecute. The Poor-law Board in their letter say: "It would be satisfactory to know whether the allegations in Dr. Mackintosh's letter in respect of the neglect to vaccinate the children in the union are correct; and if so, why the guardians have permitted such neglect to occur without taking any notice of it." Several of the guardians said they disapproved of compulsory vaccination, while others contended that the strict letter of the law should be carried out. The clerk was instructed to inform the Poor-law Board that every facility had been afforded for people to get their children vaccinated, but the guardians *declined* undertaking to prosecute parties who had neglected to do so. The case is evidently one in which the powers of the Privy Council should be energetically and speedily exerted, in order to prevent a great local calamity.

ABERDEEN INFIRMARY.

THE president and managers of the Aberdeen Royal Infirmary and Lunatic Asylum met in the Infirmary Hall on Friday, the 29th ult., and commenced business by approving a committee report recommending the enlargement of the hospital airing-grounds and the addition of wards for the better accommodation and treatment of fever cases. The Commissioners in Lunacy having stated in their last report that, owing to the overcrowded state of the Aberdeen Asylum, several paupers belonging to the county had not been admitted, the Committee of Management announced that it would be advisable to provide additional accommodation, and recommended that the east wing of the women's side of the asylum should be extended some 120 feet northwards. £1200 was the estimated cost of the extension, and powers were accordingly granted to carry it into execution, whereby accommodation for between fifty and sixty patients could be secured. The proceedings terminated with the appointment of a successor to Dr. Keith as surgeon to the infirmary. There were four candidates, all of them Aberdonians—to wit, Dr. A. Vans Best, Dr. Alexander Ogston, Dr. J. C. Ogilvie Will, and Dr. Dyce Davidson. After two divisions, Dr. Ogston was duly elected.

STATUE TO SIR DAVID BREWSTER.

A FEW hours after the graduation ceremony on Monday at Edinburgh, the Senatus Academicus, with a large body of the general public, assembled in the quadrangle of the University to witness the unveiling of the statue of Sir David Brewster. The duty of presenting the statue to the University devolved on Lord Neaves, whose characteristic felicity of allusion and neatness of phrase did not desert him on the occasion. The gift was acknowledged in graceful terms by the Chancellor (Lord Justice-General), who dwelt on the claims of Brewster to rank with Rollock, Leighton, Carstairs, and Robertson, as the most historic holders of the office of Principal. Professor Maclagan closed the proceedings by paying a well-deserved compliment to Mr. Brodie, the sculptor, whose representation of Brewster in his robes of Principal, holding a prism in one hand and a book slightly open in the other, is a very finished work of art, and a fine addition to the outward attractions of the University.

FRENCH AMBULANCES.

THESE are of two kinds: one exclusively military, and under the management of the Commissariat; the other voluntary, and organised by the powerful society which has lately been formed. The first voluntary ambulance is now complete, and ready to start. The staff consists of a head

surgeon (M. Liégeois), four surgeons (among whom is an American), ten assistant-surgeons, and twelve acting assistant-surgeons. The latter are all medical students. The society has received large subscriptions, and can dispose of much material.

M. Lannelongue, assistant professor at the Faculty, is busy from morning till night training pupils in operative surgery. He has used several subjects to receive balls from revolvers in various parts of the frame, so as to afford an opportunity of teaching the extraction of projectiles.

THE EMPEROR'S HEALTH.

NÉLATON has gone to the army, with the view, according to some, of organising the ambulance. This statement, however, is extremely improbable, as there are a large number of military surgeons in the field whose qualifications far better fit them for such duty. Baron Larrey took the field about the same time as the Emperor of the French. Nélaton has, no doubt, gone in a private capacity, as the Emperor's personal medical attendant. Our Paris correspondent, in his letter, which arrived too late for insertion last week, told us not to put any trust in the rumours that have been circulated about the Emperor's health, or his inability to take the field. Considering his age, and the great anxieties of a man in his position, he was in the enjoyment of excellent health, and there was a fair prospect of its continuance, with the precautions which he would doubtless take when once in the campaign.

THE COMMITTEE ON ARMY HOSPITAL SERVICE.

A COMMITTEE, appointed by the War Office authorities, has been recently engaged in collecting evidence and information at the larger garrison hospitals, as to the administration of these institutions, and they have visited Netley, and the Herbert Hospital, Woolwich, for that purpose. The committee is composed of Deputy Inspector-General Dr. Crawford, Colonel Rawlins, Dr. J. Sutherland, Dr. Murchison, F.R.S., Mr. Bourne, and Mr. Bridgett. Their object is to determine the expediency of increasing the authority and of defining the responsibility of medical officers in regard to the internal administration and economy of hospitals. The re-organisation of the Army Hospital Corps, and the connexion which should exist between it and the Army Service Corps, will likewise form a part of the inquiry.

PROPOSED CONFERENCE FOR A NEW MEDICAL BILL.

WITH a view to concerting such action as may satisfy all legitimate wishes of the profession with regard to the Medical Bill which must be introduced into Parliament in 1871, the College of Physicians at the last Comitia Majora passed a resolution empowering the President to invite representatives of the universities, medical corporations, and such other bodies as it might seem advisable to summon, to conference at the College.

THE SALARY OF POOR-LAW MEDICAL OFFICERS IN THE FREEBRIDGE LYNN UNION.

THE guardians of the Freebridge Lynn Union are in want of a medical officer for one of their districts, and it is fair to warn the profession that the gentleman who has just resigned has done so on account of the insufficiency of the salary. The guardians offer £28 a year, which according to past experience is exactly £1 for every fifty miles which the officer must travel over in the performance of his duty. Of course he has to find skill and medicines into the bargain. If the Poor-law Board are really desirous of securing proper medical treatment for the sick poor, they have now a good opportunity of exercising their powers.

MR. TIMOTHY HOLMES.

THE profession will share our deep regret that Mr. T. Holmes has been suffering during the last ten days from an attack of purulent ophthalmia, running a rapid and uncontrollable course, with much constitutional depression, probably the result of overwork, and unhappily terminating in the loss of the right eye. The left has fortunately been spared. We trust Mr. Holmes will soon be able to resume his professional duties.

THE Royal College of Surgeons has issued a notice that it will for the future receive certificates of the professional education of candidates for the Fellowship and Membership of the College from the following schools and hospitals in foreign countries, as well as those recognised by the Royal College of Surgeons of Edinburgh and in Ireland—viz., Paris, Montpellier, Strasburg, Berlin, Heidelberg, Vienna, Bonn, Göttingen, Wurzburg, Leyden, Liege, Pavia, Pisa, Royal Caroline Institute of Stockholm, Copenhagen, New York, Philadelphia, and the Cambridge University, Harvard, Boston.

WE understand that Dr. Andrew Wood has in the press a metrical translation of the Satires of Horace, which is expected to be published in October. We congratulate Dr. Andrew Wood on being able so to use his leisure. Happy the medical man who can get away at once from medical politics and medical practice into the pleasant society of Horace.

THE Honorary Secretary of the New Sydenham Society, in announcing that the annual meeting will be held at Newcastle on Thursday, the 11th inst., at nine o'clock, in the New Town Hall, requests the attendance of members for the transaction of business, which will include the election of office-bearers, and the approval of the report and balance-sheet.

THE letter of the well-known agriculturist, Mr. J. J. Mechi, in *The Times* of Thursday last, fully bears out the arguments we have used from time to time in reference to sewage irrigation. Mr. Mechi's suggestion, that a fair proportion of the initiatory cost of irrigation works should be borne by succeeding generations, deserves serious consideration.

A PLAN for placing the medical arrangements of Lambeth parish under one medical officer only, making him responsible for all subordinate officers in that department, has been submitted to the guardians, and will be discussed on an early occasion.

THE Privy Council have awarded to Mr. J. W. Dryland, M.R.C.S., of Kettering, Northamptonshire, a gratuity of £22 4s., and to Mr. W. Conway Hine, of the Swineshead District of the Boston Union, the sum of £7 7s., for successful vaccination.

ON Monday last the corporation of Belfast resolved to ask the British Association for the Advancement of Science to hold its Congress for 1872 at Belfast.

WE record with satisfaction that two persons, a Mrs. Eliza King and a Mr. Daniel Cooper, have been fined £5 each and costs for obstructing the working of the Contagious Diseases Acts at Plymouth.

DIARRHŒA was slightly less fatal last week in London than in the week preceding. The districts at the East-end have hitherto experienced the highest fatality from the disease. In Sheffield the diarrhœal rate of mortality last week was more than double that of London.

THE Academy of Sciences at Paris will bestow this year a prize of 5000 francs for the best essay "On the Use of Electricity in Medicine," and two prizes in Botany, each of the value of 3000 francs.

MR. CHARLES REED, M.P., has given notice that early next session he will bring forward a Bill for facilitating the constant daily supply of pure water in London and other cities, towns, and districts throughout the kingdom.

IT is announced that Colonel Henderson has instructed the police inspectors to attend every inquest held in the district in which they are stationed, and to report on every case that is attended with suspicious circumstances. This is a step in the right direction.

WE are happy to observe that the prosecution by the Crown of the baby-farmers Waters and Ellis bids fair to be very thoroughly conducted. The prisoners have been committed for trial at the Central Criminal Court on the four charges of wilful murder, manslaughter, conspiracy, and obtaining money under false pretences.

THE Bishop of Lincoln has issued a circular to the archdeacons and rural deans of the county of Lincoln asking for an expression of their views upon the adoption of "Hospital Sunday" in that county for the benefit of the Lincoln County Hospital. The Bishop is of opinion that the result of such a movement would be satisfactory.

DR. EUSTACE SMITH has been created Chevalier of the Order of Leopold, and appointed Physician in Ordinary to the King of the Belgians. This appointment does not require Dr. Smith to relinquish practice in London.

SCARLET FEVER is excessively fatal in Bristol just now; it caused more than one-sixth of the total mortality in that city last week.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual general meeting of this Association was held at the Royal College of Physicians on Tuesday, August 2nd, under the presidency of Dr. Boyd.

A letter was read from Dr. Lockhart Robertson, resigning his office as one of the editors of the Journal, and a resolution was passed acknowledging the services which Dr. Robertson had rendered to the Association, and congratulating him on his appointment as Chancery Visitor in Lunacy.

A resolution proposed in favour of the amalgamation with the Royal Academy of Medicine was rejected in favour of an amendment, declaring such amalgamation undesirable.

Dr. MAUDSLEY was unanimously elected president for the next year. Other officers elected were:—Secretary, Dr. Harrington Tuke; Editors of the Journal, Dr. Maudsley and Dr. Sibbald; Treasurer, Dr. Paul.

Sir James Alderson, Dr. Frederick Farre, and Dr. Lockhart Robertson were elected honorary members.

Dr. BOYD delivered a careful address advocating better provision for the early admission of acute pauper cases of insanity into county asylums, by providing for the proper care and treatment elsewhere of chronic and harmless cases. An animated and interesting discussion followed, the general opinion being that the present county asylums were too large and ill-fitted for the best treatment of acute cases of insanity. A strong opinion was expressed by some members that insanity was not increasing out of proportion to the increasing population.

Dr. DAVEY read an eloquent paper on *Felo-de-se*, advocating the view that suicide is always the result of cerebro-mental disorder. A discussion followed, in which several members protested against the opinion that suicide was, in all cases, an indication of mental disorder, maintaining that perfectly sane persons might commit suicide.

On the motion of Dr. ARLIDGE, a committee was appointed to examine the lunacy laws of the Continental States and of America, with a view to the suggestion of improvement in the Lunacy Acts of this country.

The members and their friends dined together in the evening at Willis's Rooms.

HOSPITAL OUT-PATIENT REFORM.

(*Concluded from p. 137.*)

Par. 6 was divided into 6, 7, and 8, which were put separately, as including the question of a closer relationship between hospital and dispensary relief, and between hospital and Poor-law relief, and the mode of carrying it into effect:—

"In the next place the sub-committee are of opinion that, having regard to the due extension of the system of Provident dispensaries, and the proposed improvement of the Poor-law dispensaries, a closer relationship between the out-patient departments of the hospitals and those institutions is very desirable, alike in the interests of the sick poor, the respective medical officers, and the students of the various medical schools."

"This relationship should, in the opinion of the sub-committee, be such as to secure to the members of Provident Dispensaries, and also to patients of the Poor-law Dispensaries, all those advantages which the hospital system is capable of affording, whenever they are specially required. As the hospital staff consists of consultees, not general practitioners, it is only consistent that their services should be asked for chiefly in cases of peculiar difficulty, prolonged anxiety, deep professional interest, &c., and it is altogether unreasonable to call upon them to treat case after case for many hours together, without, it may be, the occurrence of any of importance."

"Whereas, by the co-operation of Provident and Poor-law Dispensaries with hospitals, the time of the medical and surgical consultees would be economised, the real needs of the suffering and deserving far more adequately met, and one great ground of complaint on the part of general practitioners practising in the neighbourhood of hospitals removed. For it cannot be doubted that numerous cases do occur in which persons who could well afford to pay a moderate fee habitually go to the out-patient departments, tempted there by the extraordinary facilities and professional advantages now offered, with more and more competition between rival institutions, and more and more evil every day."

Dr. TILBURY FOX objected to the proposed co-operation, on the ground that it would be objectionable to mix ordinary out-patients with paupers.

Dr. DUDFIELD found from his experience that they were practically identical, and that the poor fluctuated between hospitals and workhouses.

Mr. HOLMES said that no one could visit a workhouse sick ward without observing that many persons found there were not really paupers in any degrading sense.

Mr. BRUDENELL CARTER stated that in Nottingham it was an accident whether patients came to him as a Poor-law medical officer or as a hospital surgeon.

Dr. STALLARD drew attention to the statistics quoted in a former paragraph showing conclusively that there was no possible distinction between paupers and poor persons.

The principle was affirmed by a large majority.

Par. 7 was then passed:—

"Your sub-committee have directed their attention to the manner in which this relationship between the various kinds of dispensaries and hospitals may best be carried on. They would observe that one of the most glaring defects

in the present system of medical education, a defect which has become more and more prominent since the discontinuance of the system of apprenticeship, is the entire absence of practical acquaintance with the domiciliary treatment of disease. In the hospital everything is at hand. The formula for the prescription, the nurse with every convenience, the dietary fixed and suitable, and the ward with perfect cleanliness and space. Whereas, even in the most perfect private dwelling, the medical attendant is called upon to tax his ingenuity and resources to the utmost. He must give instructions as to ventilation, cleanliness, feeding, nursing, &c., and these and other directions have to be varied in almost every dwelling. He must also write out in full his prescription, so that it may be clearly understood. The sub-committee are, therefore, of opinion that the teaching power of the out-patient department would be very largely increased if students of three years' standing were required to attend for six months as assistants at a Provident or Poor-law dispensary, and they think that some provision might be made by which serious and interesting cases shall, through the instrumentality of these institutions, be transferred to the hospital for special treatment and clinical illustration. By such an arrangement the consulting staff of hospitals would at all times be able to secure the attendance at the hospital of a series of cases illustrating special diseases, and by this means also carry out and test special modes of treatment; whilst, as in Edinburgh, the affiliation of such dispensaries to hospitals would always secure the prompt admission of acute diseases, and of cases requiring the peculiar resources of the hospital. It is believed that an ample field of useful and interesting observation would always be secured to the out-patient staff, without the possibility of abuse, and they therefore think that the out-patient department ought to be recognised for purposes of special clinical teaching, in the same way as the in-patient department is already."

Par. 8. "It will be seen that the committee propose that the admission of out-patients to general hospitals shall, as a rule, be made through the Provident and Poor-law dispensaries, and it is believed that the proposal would confer the greatest advantage on the sick poor, who would thus be secured the best professional advice whenever it was really needed. But as it is obvious that such an important change could not be carried out at once, and that there will always remain a certain number of patients who require prompt assistance for accidents, injuries, and sudden attacks of disease, your sub-committee are of opinion that the duty of instituting inquiries by domiciliary visitation and otherwise into the social position and resources of all patients not admitted as proposed should be confided to a lay officer of the hospital. Without desiring to lay down for the guidance of this officer any absolute condition of admission to the hospital, the sub-committee recommend that such an officer should be authorised to require particulars as to the income, occupation, and rent paid by the applicant; and also a certificate from the agent of any society for organising charity, if such exists, or, in default, from the governor of the hospital, a clergyman or medical man residing in the neighbourhood. This certificate ought to state that the applicant cannot afford to pay for medical advice; and it should further be required that no subscriber to a hospital should be allowed to receive benefit either for himself or any member of his own household. Pending this proposed reform, the committee are of opinion that a qualified medical officer should be appointed for the purpose of sifting the cases for out-patient relief, and refusing those who are suffering from trifling disorders, and others who may be as properly attended at Poor-law or provident institutions."—Adopted.

Par. 9. "With respect to the duties of the out-patient service, the sub-committee are of opinion that the medical officers ought in no case to be called upon to attend for more than three hours at a time."

An amendment, proposing that it should not exceed two hours, was rejected.

Par. 10. "That, with due regard to proper registration, careful diagnosis, and clinical instruction where there are students, the number of new patients should not exceed twenty per day for each officer."—Adopted.

Par. 11. "With respect to a proposal of granting to medical practitioners the opportunity of obtaining gratuitous consultations for patients, who, though able to pay for ordinary advice and medicines, would yet be embarrassed by the payment of a fee, the sub-committee are of opinion that, under certain restrictions as safeguards against possible abuse, a system of gratuitous consultations at hospitals may be established with great advantage to the poorer classes, and be a means of improving the present system of medical education. That, in order to the proper working of this system, the general practitioner who seeks a gratuitous consultation at a hospital is bound to see that the privilege is not abused by persons for whose benefit the consultation is sought, and that he should himself attend the consultation. The committee, however, recommend that, as far as possible, the system of giving gratuitous consultations and gratuitous advice be limited in its application to hospitals and other public charities. And they do so because they are of opinion that many patients would prefer to pay a fee for the privilege of avoiding the publicity which is the condition of gratuitous hospital relief, and the numerous examinations by students necessary to their acquiring a knowledge of disease."

The Committee met at the Hospital for Women, Soho, on Thursday evening, the 28th ult. The report of the sub-committee on Special Hospitals was read, so far as it related to the question of payments to be made by patients. The report on provident and other dispensaries was not yet ready, owing to the large amount of information which had been afforded, and which required to be condensed. It was therefore resolved to postpone the consideration of the question of payments by patients until that report was presented. The Committee accordingly adjourned until the second week in October, when, all the reports being before them, this most important question will be fully discussed. The Committee venture to request subscriptions, and they compute that about £50 will be necessary to pay the expenses of postage, printing, &c. Subscribers will be furnished with copies of the various reports on application to Dr. Meadows (treasurer), or to either of the honorary secretaries.

RAILWAY COMPENSATION.

THE select committee of the House of Commons, appointed "to inquire into the law and the administration of the law of compensation for accidents as applied to Railway Companies," took evidence on seven occasions, and presented a report which has just been printed. The witnesses examined consisted principally of railway officials, but included also the following judges:—Mr. Baron Martin, Mr. Baron Bramwell, Mr. Justice Hannen, and Mr. Justice Willes; and one medical man, Mr. Pemberton.

In their report the committee recommend that, on the one hand, railway companies should be absolutely responsible for all injuries arising in the conveyance of passengers, except those due to their own negligence; and that, on the other hand, the liability of the railway companies should be limited within a maximum amount of compensation for each class of fares.

The committee are of opinion that trial by jury does not in these cases work satisfactorily; and they recommend that for the future a court should be established for the trial of these cases without a jury, which would be sufficiently strong to secure the confidence of the public, and which should possess adequate legal experience, and be assisted by engineering and medical advice. They recommend to the careful consideration of Her Majesty's Government the best mode of constituting such a tribunal. All disputed claims for damages arising out of railway accidents should be made to such court, which should have power, if it think fit, to institute an inquiry on the spot.

The costs should in all cases, when the claimant recovers damages, be borne by the company, except when the company shall have tendered a sum equal to or larger than the sum recovered, in which case the costs should be in the discretion of the court.

Notices of possible or probable claims should be given to the company within a limited specified time from the date of the accident; in default thereof no claim should be established.

Should this tribunal be constituted, the committee see no reason for altering the present system of unlimited liability. In the event of the tribunal remaining as now, the committee are of opinion that the liability should be limited as follows:—1st class passengers, £1000; 2nd class, £500; 3rd class, £300.

The committee further think that if this limitation is conceded, the public should have power of insuring with the company for an additional sum of £3000 in a 1st class, £2000 in a 2nd class, and £900 in a 3rd class, at a reasonable charge not exceeding 3*d.* a £1000 for the 1st class, 2*d.* for £500 in the 2nd class, and 1*d.* for £300 in the 3rd class, for the journey.

Correspondence.

"Audi alteram partem."

ON THE ALLEGED FRAGILITY OF THE BONES OF LUNATICS.

To the Editor of THE LANCET.

SIR,—In your leading article, dated July 23rd, which comments on the Twenty-fourth Report of the Commissioners in Lunacy, you have touched, though but slightly, the question but recently raised as to the changes or degenerations occurring to the bones of insane persons. Your words run thus:—"The commissioners do not even refer to the fragility hypothesis." At page 134 of the same LANCET I find a second criticism on the same subject, headed "Broken Ribs in India." You conclude this shorter article in these words, viz.:—"We should much like to be informed by some experienced superintendent whether the fragility of ribs, that is so common in this country, has ever been known to be attended by similar fragility of the liver."

I feel, Sir, that my own long experience as an asylum-superintendent—I was appointed the medical superintendent (female department) of the Hanwell Asylum in 1840—justifies me in accepting the challenge thus, and so peculiarly put before your readers: the challenge to prove, not that the liver becomes fragile in lunacy, but that the bones of the insane do, under certain and exceptional circumstances, lose their normal physical characteristics, and become much degenerated and softened, and "liable, therefore, to injury, and even fractures, from very slight and seemingly insufficient causes."* You will agree with me that if such be the case—if the bones of the lunatic are more especially liable to osteo-malacia, or, as it is more commonly called, mollities ossium, than those (bones) of other and sane people, the fact, as one of much importance, should be as generally recognised as possible, and be known equally to the pathologist, and all other persons having the charge or responsibility, directly or indirectly, of those mentally afflicted.

It was so long ago as 1842, when in charge of the female department of the Hanwell Asylum, that my attention became directed to the state of the bones of the insane. When much occupied in post-mortem examinations at Hanwell, a very extraordinary case of mollities ossium in a female patient was admitted. Now it must be borne in mind that the affection of the bones in the patient alluded to preceded the occurrence of mental derangement. The latter disease, indeed, was held in a general way to have been caused by the former—i.e., the mollities ossium,—or, what is the same thing, by the extreme and almost incessant pain which accompanied it. However, for full and particular details of this remarkable case, I would refer you to the *Medical Times*, No. 170, vol. vii., p. 195 (1842), and to my book "On the Ganglionic Nervous System," published in 1858, chap. iii., pages 258—265. These details will prove to you, as well as to certain scribes in the *Pall Mall Gazette*, that the plain and unadorned history of C. S.—a history written by me twenty-eight years ago—demonstrates, amongst other things, that the order of occurrence, and not less the progress, of the several signs and symptoms of morbid action, both in the osseous structures and in the brain itself, negative *in toto*, and unconditionally, the possibility even of force—i.e., unfair dealing—in any way whatsoever. In about six months after admission C. S. died. My then colleagues, Drs. Conolly and Begley (Mr. S. Solly, the eminent surgeon, being also present by my invitation), and myself made a very careful post-mortem examination of the body (see *Medical Times* as above), and the facts disclosed interested me not a little.

I was led at length to the close observation of the bones of deceased patients, and proceeded to compare the specimens obtained from the examination of C. S—— with other portions of bone, of this and that patient, as the opportunity offered. The result was the positive discovery (as it appears) of this fact—namely, that the insane are, in rare and exceptional instances, the subjects of "a peculiar affection of the skeleton," "a rare and atonic condition of the bones," a state of things in which there is a great "liability in patients to ecchymoses, and even fractures, and these from very slight and seemingly insufficient causes" (see my "Ganglionic Nervous System," p. 260). In considering the cause of this osteo-malacia (of which "affection of parts only of the skeleton of those dying insane" I have met with five or six examples, the majority of which were in persons (insane) afflicted with general paralysis)—in considering, I say, the cause of the malady named, I have put it down to an "impaired vitality," "a cachectic state of the constitution" giving rise "to the exhalation or secretion of morbid matter into the cellular or cancellous portion of the osseous structures; and which morbid matter consists in an aqueous, serous, sero-sanguineous or gelatinous fluid, of various degrees of density."

I believe the above quotations from my "Ganglionic Nervous System," will be found essentially correct for all practical purposes.

It is well that I should add that, although an old and "experienced superintendent," I have had no personal acquaintance with such cases of serious assault by asylum attendants, producing fractured ribs, as those probably of poor Nistri and Rees Price; but I have, through long years, been assured of the "bad consequences of overgrown asylums, paucity of attendants, and of inadequate supervision"; and, what is more, of the sad and fatal want of industrious, painstaking, and sympathising attendants on the insane, to whatever position or rank of life such may happen to belong.

I remain, Sir, your obedient servant,

JAMES G. DAVEY, M.D., M.R.C.P. Lond.,
Formerly Med. Supt. at the Hanwell and Colney Hatch Asylums, Middlesex.

Northwoods, Bristol, July 27th, 1870.

*** We have printed Dr. Davey's ponderous communication, in the hope that some of our readers, more fortunate than ourselves, may be able to discover what it establishes, or why it has been penned. It has been known from the dawn of medical writing that fragility of the bones sometimes occurs in advanced life; and we may be pardoned for pointing out to Dr. Davey that this is a distinct condition from "mollities," in which the bones are more liable to bend than to break. Insanity is often associated with impairment of nutrition; and it is therefore quite possible that fragility of the bones may be more frequent among the insane than among the rest of the population. It may, for all we know, be very common in the advanced stages of general paralysis; and, although we fail to see how it is connected with the ganglionic nervous system, there can be no doubt that the introduction of cases into a book upon that subject does infinite credit to Dr. Davey's ingenuity. The real point at issue is this, that while it may be true that the bones of lunatics are sometimes fragile, and while it is unquestionably true that they are often broken by violence—and while "psychologists" have been adducing the fragility as an explanation of the fractures, yet no attempt has ever been made to show that the particular madmen whose ribs were smashed had any participation in the fragility of bone said to be peculiar to their class. We crave pardon of other people while we inform

* These words were written by myself more than twelve years since.—J. G. D.

Dr. Davey that our question about the fragility of the liver was hardly put in seriousness. We regarded it ourselves as an instance of the employment of a mode of speech which is called irony, and is one of the primary tropes known to rhetoricians.—ED. L.

LONDON FEVER HOSPITAL.

To the Editor of THE LANCET.

SIR,—I beg to enclose you a statement of the weekly admissions of typhus fever into this hospital for the last three months:—

There were admitted during the week ending May 7th, 2 cases; 14th, 6; 21st, 10; 28th, 9; June 4th, 4; 11th, 14; 18th, 9; 25th, 10; July 2nd, 13; 9th, 18; 16th, 36; 23rd, 13; 30th, 8.

You will see that there has been a sudden diminution in the numbers since the paragraph in your journal of the 23rd ult.

The rapid influx of cases during the second week of July was the more remarkable, as they came from all parts of London. Of the total of 152 cases for the thirteen weeks, 62 were males, and 90 females.

I am, Sir, your obedient servant,

W. R. CHEYNE,
August 2nd, 1870. Resident Medical Officer.

DISLOCATION WITHOUT FRACTURE OF THE ILIUM.

To the Editor of THE LANCET.

SIR,—I shall be very much obliged if you will be kind enough to insert the enclosed in THE LANCET.

On Friday afternoon, July 27th, a man, thirty-five years of age, who a few hours before had been crushed between the buffer of an engine and a coal truck, was admitted into the Newcastle Infirmary, under the care of Mr. Russell, in a state of collapse. Blood was flowing from the urethra, and there was displacement and considerable movement of the left ilium, with great ecchymosis and tumefaction of the lower part of the abdomen, the scrotum, and the upper part of the left thigh. A catheter was introduced, and tied in the bladder, but only about a couple of ounces of bloody urine escaped during the whole progress of the case. Rupture of the bladder, with fracture of the pelvis, was diagnosed. Early on Sunday morning the man died.

A post-mortem examination revealed a rupture in the anterior wall of the bladder, and a complete dislocation without any fracture of the left ilium, from both the sacro-iliac synchondrosis and the pubic symphysis. Rare cases of partial dislocation without fracture of the ilium are on record; but, so far as I am aware, a complete separation of the bone without fracture has never been described, and I believe it is generally held by surgeons that such an accident is impossible.

I am, Sir, your obedient servant,

FREDERICK PAGE, M.D.,
Aug. 4th, 1870. Senior House-Surgeon, Newcastle Infirmary.

THE OPEN-AIR TREATMENT OF DISEASE.

To the Editor of THE LANCET.

SIR,—When attending cases of typhoid fever (typhus I have only seen once, and that in a tramp, while practising here over thirteen years), I invariably ask the patient's attendant, "What are windows made for?" and, as an addendum to the reply, remark, "To let the fresh air in." Country patients frequently suffer more from impure air than town cases.—Yours faithfully,

Framlingham, July 30th, 1870. GEO. E. JEAFFRESON.

RIB-BREAKING IN INDIA.—At Colaba, a native, found to be ailing, was treated for remittent fever of which he died. On post-mortem examination he was seen to have had six ribs broken. The injuries were proved to have been not self-inflicted. According to the *Friend of India* the violent ward is over-crowded; the refractory patients come into collision with each other; and there is no warder.

THE WAR.

(FROM OUR SPECIAL CORRESPONDENT.)

THE SANITARY ORGANISATION OF THE PRUSSIAN ARMY.

SINCE the last war the sanitary organisation of the Prussian army has been improved in a remarkable manner, and may now compete with the best in the world. The army medical staff is conformed to the army organisation, and composed of surgeons of the regular army and members of the Landwehr, or rifle volunteers—that is to say, civilian practitioners who are ordered to the military service even on the outbreak of a war. The number of the first amounts to 900—superintendent, deputy staff surgeons, and assistant-surgeons; that of the Landwehr to 1000. But the medical staff is, at the moment war is declared, much greater, because almost all young medical graduates enter the service as volunteers. Besides the surgeons, diseased and wounded soldiers are attended by a subordinate service, connected with the medical staff. According to an old Prussian custom, two soldiers per company are, during the general military service, instructed in minor surgery, to be medical servants in the rank of non-commissioned officers. It is their duty to attend to the orders of the surgeons, and to perform the smaller operations of dressing wounds, &c.

There is connected with the medical staff yet another class of soldiers, called the Corps of Sick Bearers, composed of soldiers who have learned, in a short course, the elements of human anatomy, and the methods of bandaging and of transporting wounded people in a convenient manner. Their number may amount to 200 for every army corps, or a total of 5000. Added together, the total number of persons charged with the care of soldiers amounts to from 12,000 to 15,000 for an army of 80,000. That is the paid portion; but the whole German people will unite in the charitable work. When, in the last Austrian war, the increasing number of wounded soldiers, and the outbreak of cholera, led to a dreadful want of surgeons and nurses, some ladies and gentlemen founded a voluntary society, with H.M. the Queen as patron, and an appeal to the people met with an enthusiastic response. In a short time the Committee procured an enormous number of volunteer nurses from all classes of society. After the war was ended, the Committee constituted itself so as to re-form the Society in the event of another war. The moment war was declared, the Committee published a new appeal, and of course with the greatest success. You have no idea of the readiness of our people to rush to the work. This is of the greatest importance for the army, and the more so as the Committee does not limit its operations to the care of the diseased only, but also furnishes the marching troops with refreshments.

The Army Medical Service is ruled by a very good organisation. Like an army, the staff is under the command of the general staff surgeon, Dr. Grimm. The vanguard consists of the surgeons accompanying the troops, and of the sanitary detachment; the centre, of the attendants of the ambulance hospitals; and the reserve, of the surgeons of the reserve hospitals.

The troop-surgeon has to attend his troop during the whole campaign, and accompany it to the battle-field. To that end he has under his control four medical servants and two waggons, of which one is filled with some of the usual drugs, a case with instruments for small operations, a sufficient quantity of lint and rag, plaster, &c. The other waggon is destined to be an asylum for diseased soldiers. The doctor is charged with the attendance of the soldiers to the point where he feels that the disease is becoming grave, when he sends the soldier to the next hospital.

The sanitary detachments follow immediately after the troops, and are occupied only during a battle. Their armament and organisation are carefully regulated to their great importance. Each detachment is composed of two staff-surgeons, three assistant-surgeons, five medical servants, and 125 transporters of wounded men; and it is furnished with two waggons, containing a dispensary with the usual drugs, some cases of instruments, a lot of lint, splints, bandages, plaster, &c., besides that belonging to a

quantity of carts and omnibuses for the transport of wounded. The service of this detachment is carried out in the following manner:—The transporters are deployed over the battle-field; every fourth man is furnished with a band, whose pockets contain some lint, plaster, and refreshment. So equipped they gather up the wounded from the ground, and lead them as quickly and cautiously as possible to the spot for bandaging, having, if necessary, put on the first bandage. These soldiers are intrusted especially with transporting wounded, and the English medical deputy who attended the Medical Congress of 1868, at Berlin, will remember, I believe, how skilful they are in handling diseased people. On the spot for bandaging, the wounded are examined by the surgeons, and get a regular bandage, or are subjected to an operation. Then they are transferred to another very comfortable waggon, to be driven, without any injury or trouble, to the next ambulance hospital.

I must add that every soldier bears in his left pocket some lint, &c., and is furnished with a tin badge, engraved with a certain number, in order that he may be recognised in every case. The ambulance hospitals make out the centre of our sanitary organisations. The hospitals are, like the settled ones, fitted out with all the requisites of a good infirmary. They are headed by a chief surgeon, of the rank of a major or captain, a surgeon and three assistant-surgeons, with an apothecary, nine medical servants, twelve nurses, and some officers. To its equipage belong two waggons, each containing a complete apothecary's shop, a store of chirurgical instruments and utensils, a great quantity of bandages, lint, &c., and six waggons fitted with all utensils required for establishing 200 beds. The chief surgeon has to select near the battle-field the best buildings situated in the country round. The buildings must secure due room for every inmate, good ventilation, and sufficient water-supply, and must offer a garden, in order to build barracks and tents, where the badly wounded patients are to be placed. The medical board is assisted by a sufficient number of servants and nurses, and there is the rendezvous of voluntary nurses. Of course the wounded are attended very carefully, and here are practised all the operations that could not be done by the sanitary detachments. The wounded are prescribed for, but are not expected to remain as inmates of the hospital for a long time, because the general experience has taught that the gathering of a great number of wounded men in a narrow room excites the outbreak of epidemic diseases. Therefore the Government has devised two means to prevent such a disaster. The equipage of the hospitals is double-fitted, so that each hospital may be divided into two smaller ones, if it is wanted; and then the chiefs are charged to constantly evacuate the hospitals and to follow the advancing army with their stores and waggons as soon as possible. To every hospital belong roomy omnibuses fitted with mattresses, for the transport of wounded to the next railway station, where a board of surgeons have to look to their embarkation, and to direct the medical arrangement of the train. The patients are transferred straight to the reserve hospitals, situated in our own country, and scattered over the whole kingdom. Of course we have not sufficient hospitals to receive such an enormous number of inmates as may be expected in a sanguinary war; and in reference to this, the Government, contemporaneously with the mobilisation of the army, ordered that all great buildings, as barracks, offices, &c., shall be changed to hospitals. It must be gratifying to everyone, that our Government has endeavoured to procure the best care for the defenders of our homes; and as the war may be a very bloody one, it is all done to suit every event. What is of great moment, the staff of surgeons is distributed in such a manner as to be capable of being sent at any moment to the spot where their help is wanted the most. Besides that, our best surgeons—viz., Langenbeck, Barvelsben, Wagner, Volkmann, Wilms, and others are engaged as medical superintendents to lend their counsel and to direct operations.

The enthusiasm of our people is a powerful aid to the soldiers. Every man contributes to the common work according to his means. The rich private gentleman sends his sovereigns; the merchant his provisions—cigars, tobacco, bread, meat, wine, beer, and other drinks; the manufacturer his goods—lint, calico, cotton, &c.; and the ladies are sewing bandages, or making rags (charpie). The troops passing the stations are welcomed and refreshed with provisions; and private hospitals are raised and well fitted. So may the war begin: we are prepared to vanquish some of its terrors.

Berlin, July 30th, 1870.

ST. GEORGE'S HOSPITAL.

THE following is the list of prizes awarded to the students who have distinguished themselves during the session 1869–70:—

The Acland Prize for Clinical Medicine.

Mr. E. Cresswell Baber.

The Henry Johnson Memorial Prize for Anatomy.

Prize, Mr. Goldsmith; Certificate, Mr. Thrupp; Certificate for Dissection, Mr. Winterbottam.

General Proficiency Prizes.

First Year's Pupils.—Prize, Mr. Evans; Honorary Certificate, Mr. Seccombe. Certificates of Proficiency: In Anatomy and Chemistry, Mr. Moore; Chemistry and Botany, Mr. Pollard; Anatomy, Mr. Parker and Mr. Heisch; Chemistry, Mr. Goodchild and Mr. Ward.

Second Year's Pupils.—Prize, Mr. Winterbottam; Honorary Certificate, Mr. Robinson; Honorary Certificate in Materia Medica and Chemistry, Mr. Warden; Ditto in Anatomy and Physiology, Mr. Hope; Certificates of Proficiency, Mr. Athill and Mr. Coltart.

Third Year's Pupils.—Prize, Mr. A. B. Norman; Honorary Certificate, Mr. G. Walker; Certificate of Proficiency in Medicine, Mr. Piggott.

Medical News.

UNIVERSITY OF LONDON. — The following are lists of the candidates who have passed the recent examinations:—

FIRST B.SC. EXAMINATION.

FIRST DIVISION.—Philip Herbert Carpenter, Univ. Coll. and Royal School of Mines; Thomas Hick, B.A. (private study); John Landor Lowe, King's Coll.; Leonard Lyell, Bernard Mathias Simon Roth, and Robert Forsyth Scott, Univ. Coll.

SECOND DIVISION.—Chas. Stuart M'Lean, B.A., Wesleyan Coll., Taunton; James Monckman (private study); Henry Helthington Price, Univ. and Regent's-park Colls.; William Watson Rowland, B.A., Univ. Coll.

PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.

FIRST DIVISION. — Edward Cresswell Baber, St. George's; Albert Boyce Barrow, George Henry Batterbury, and Ernest William White, King's Coll.; Philip Herbert Carpenter, Univ. Coll. and Roy. School of Mines; Eugène Crétin, Chas. R. Bell Keetley, and James Shuter, St. Barthol.; Henry Joseph Firth Groves, Henry Hetley, and Sydney Howard Vines, Guy's; Edward Kennedy, B.A., Manchester School; John Lewtas, Liverpool School; John Magrath and Bernard Mathias Simon Roth, Univ. Coll.

SECOND DIVISION.—Andrew Dodson, Queen's Coll., Birmingham; George Garlick, Jean Arthur Hullard, Thomas Edwin Maclean, Thomas King Rogers, and Edward Wackerbarth, Univ. Coll.; Arthur Henry Jones and Thomas Simmons Morley (private study); William Henry Lamb, Frederick John Morton Palmer, and James Arthur Rigby, Guy's; Edw. Monson Madden, King's Coll.; William John Notley, B.A., Univ. Edin.; Henry Elthington Price, Univ. and Regent's-park Colls.; Francis Geo. Hamilton, Vincent Dormer Harris, and Tom Henry Sawtell, St. Barthol.; Robert Harold Ainsworth Schofield, B.A., Owens Coll.; John William Taylor, Charing-cross Hosp.

FIRST M.B. EXAMINATION.

ENTIRE.

FIRST DIVISION.—George Harry Barfoot, James Henry Benham, Sidney Coupland, William Smith Greenfield, Charles Atkinson Nankivell, and Walter Ottley, Univ. Coll.; George Birt, Sydenham Coll., Birmingham; Ebenezer Geer Russell, Guy's.

SECOND DIVISION.—Thomas Barlow, B.Sc., Univ. and Owens Colls.; Phillip Henry Bindley, Richard Goodwin Breeze, Leonard Cane, Walter Bernard Cornelius, Charles Washington Shirley Deakin, Rickman John Godlee, B.A., Thomas Anthony Aloysius McCann, Ebenezer John Ramsay, and Arthur Rich Saunders, Univ. Coll.; Cuthbert Hilton Golding Bird, B.A., Benjamin Neale Dalton, Thomas Eastes, and George Henry Percival, Guy's; Gerald Bomford, John Alexander Cockburn, Andrew Duncan, Joseph Henry Philpot, and William Rose, King's Coll.; Thomas Carleton Ballton, Owens Coll. and St. Barthol.; Henry William Saunders, St. Thomas's; Herbert Taylor, St. Barthol.

EXCLUDING PHYSIOLOGY.

SECOND DIVISION.—David Arthur Davies, Univ. Coll.; William Williams, Guy's.

PHYSIOLOGY ONLY.

SECOND DIVISION.—John Thomas Darby, Univ. Coll.; Robert Eardley-Wilmot, King's Coll.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — At the quarterly meeting of the College on July 28th, the following gentlemen, having passed the required examinations, were admitted Members:—

Baxter, E. Buchanan, M.B. Lond., Clifton-chambers, Gate-st.
Fenwick, J. C. J., M.B. Cantab., Coleshill-st., Eaton-sq.
Kelly, Charles, M.D. Lond., Wimpole-street.
Roberts, Fred. T., M.B. Lond., Elgin-crescent, Kensington-pk.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the final examination for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on July 28th and 29th:—

Bailey, Henry Bennett, L.S.A., Sutton St. Edmunds, Lincoln.
Battersby, William E., M.B. Dub., Killarney.
Browne, H. W. Langley, West Bromwich.
Clarke, Joseph Hirst, Sheffield.
Clay, Charles, Dewsbury, Yorkshire.
Dixon, Henry Edward, Watlington, Norfolk.
Eagar, Robert T. S., Andenshaw, Lancashire.
Fenton, George, L.S.A., Great Smith-street.
Harding, Alfred W., Percy-street.
Hardman, William, Blackpool, Lancashire.
Hibberd, Henry Jukes, Peckham.
Hollingshead, Francis, Coventry.
Hudson, Hubert Ernest, L.S.A., Cranbrook, Kent.
Hunt, Joseph, Hopwood Allchurch.
Lloyd, Thomas Llewellyn, Wrexham, North Wales.
Lovejoy, William Henry, M.D. New York, Portman-street.
Lovell, Francis Ottley, Kilburn.
Macan, Jameson John, Cheam, Surrey.
Mitchell, Alexander, Birmingham.
O'Farrell, George P., M.D. Dub., Boyle, Co. Roscommon.
Plowright, Chas. Bagge, L.R.C.P. Edin., North Wotton, Norfolk.
Rigden, Walter, L.S.A., Canterbury.
Ravenhill, Edmund B., Arlingham.
Shaw, Bernard John, L.S.A., Attercliffe, Yorks.
Smith, Arthur William, L.S.A., Halifax.
Smith, Charles Wait, Jamaica.
Thorpe, George E. K., L.S.A., Sheffield.
Times, Lawrence Kingston, Manchester-street.
Tothill, Thomas H. F., L.S.A., Topham, Devon.
*Tuck, Frank Sextus, L.S.A., Lee, Kent.
Vickers, Charles William, L.S.A., Huddersfield.
Warburton, Edmund S., Betley-Crewe.
Wilson, George, L.S.A., Claverton-street.

* Omitted in last week's list.

The following candidates, having passed the required examination, obtained their diplomas in Dental Surgery at a Board of Examiners held on the 2nd inst.:—

Bartlett, Edward, Connaught-square.
Bartlett, William, Connaught-square.
Clark, Charles Lane, Harley-street.
Ebbetts, Francis Frederick, Tottenham.
Forster, George Graham, Durham.
Lyons, Isidor Isaac, St. John's-wood.
Rogers, Charles Claude, Cork-street, Burlington-gardens.
Tuck, Richard William H., Truro, Cornwall.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 28th:—

Chalmers, Robert, Glasgow.
Madeley, Edward, Kensington.
Smith, Edwin, Birmingham.
Southee, Henry Edward, Canterbury.

As Assistants in Compounding and Dispensing Medicines:—

Griffin, Thomas, Bromley, Kent.
Jones, John, Walworth-road.
Williams, J. Havard, St. George's-place.

The following gentlemen also on the same day passed their first professional examination:—

Philip Brindley, C. W. S. Deakin, and J. W. Watson, University College; T. R. Edmundson, R. H. Paterson, and D. M. B. Wheeler, Guy's; G. H. Fosbroke, Westminster Hospital; J. D. Harris, St. Bartholomew's; W. A. Maybury, St. Thomas's.

THE EDINBURGH UNIVERSITY CLUB.—On Monday, the 1st instant, the Edinburgh University Club held its quarterly dinner at the Mitre Hotel, Hampton Court. In the absence of Dr. Sieveking, one of the Vice-presidents, from indisposition, the chair was occupied by Dr. Alexander Halley, while Dr. Richard Davy took the vice-chair. In an able speech Dr. Halley recapitulated the objects of the Club, dwelling particularly on the opportunities its periodical *reunions* afforded for the revival of early College associations, and the maintenance of good-fellowship among the widely-scattered *alumni* of the great Edinburgh school. Several songs, given with the feeling and effect for which certain vocalists of the Club are deservedly popular, formed agreeable interludes to the successive toasts, among which that of "Dr. John Meredith and the Indian Medical Service" was appropriately introduced and acknowledged. The company separated shortly before 11 P.M.

APOTHECARIES' HALL OF IRELAND.—At a meeting of the Council of the Apothecaries' Company, the following office-bearers were elected for the ensuing year:—Governor: Arthur Harvey. Deputy-Governor: Robert Montgomery. Court of Directors and Examiners: Thomas Collins, Joseph Dirham, Charles Holmes, Charles H. Leet, Charles F. Moore, Henry P. Nolan, Jerome O'Flagherty, Edward J. O'Neill, George B. Owens, John Ryan, James Shaw, John Shea, and George Wyse. Examiners in Arts: George Atkinson, and John W. Moore.

NORTH OF SCOTLAND MEDICAL ASSOCIATION.—The annual meeting of this Association was held on Saturday last at the Medical Hall, Aberdeen, Dr. Keith presiding. After some observations by Dr. Struthers on the value of anatomical museums, followed by an inspection, on the part of the members, of the museum in the University, the President delivered the address. Touching on the topics of medical interest during the last twelve months—the Scottish Poor-law Act, the Medical Act Amendment Bill, the Contagious Diseases Act, and the recent malversation of patronage by the Court of Curators in Edinburgh—he passed to local topics, some of which are noticed elsewhere in our columns. With reference to the new Medical Bill, Dr. G. G. Brown insisted on the popularisation of the new Medical Council. Another point which Dr. Brown enforced with much effect was the "primary education of young men previous to the medical curriculum." The respect and confidence of the public, he contended, could only be secured by having all the members of the profession thoroughly educated. At the close of the discussion, Dr. Davidson was appointed President for the ensuing year, Dr. Keith receiving a hearty vote of thanks for his ability in discharging that office for the past year.

MEDICAL MEN IN SAXONY.—The profession in Saxony have been appealed to by the Government as regards the care of the sick and wounded who may be sent to the hospitals of Dresden to be fitted up for their reception. There is no doubt that the civil practitioners will, as in the war of 1866, come forward on this occasion. Students and young practitioners are at the same time invited to join the army both as surgeons and assistant-surgeons. It is expected that a great number of medical men will be wanted.

Medical Appointments.

ARMSTRONG, J. H., M.R.C.S.E., has been appointed Medical Officer for the Milton District of the Gravesend and Milton Union.

ACHE, I., M.B., C.M., has been appointed Medical Officer to the Letterkenny Free Hospital, and Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Letterkenny Dispensary District of the Letterkenny Union, vice Henley Thorp, M.D., deceased.

ASTLES, H. E., L.R.C.P.Ed., has been appointed Medical Officer for the first Division of District No. 1 and the Workhouse of the Halstead Union, Essex, vice H. Gramshaw, M.R.C.S.E., resigned.

BROWNE, E. A., M.R.C.S.E., has been appointed Demonstrator of Anatomy at the Liverpool Royal Infirmary School of Medicine.

CLAPTON, E., M.D., F.R.C.S.E., has been elected Physician to St. Thomas's Hospital, vice Dr. Goolden, resigned.

DAVIES, Mr. W., has been appointed Medical Officer for the Overton District of the Ellesmere Union, Salop, vice Haire, deceased.

DUNCAN, J. M., M.D., has been appointed a Physician to the Royal Maternity Hospital, Edinburgh.

GODSON, A., M.B., has been appointed Medical Officer for the Cheadle District of the Stockport Union, Cheshire, vice E. H. Pitman, M.R.C.S.E., deceased.

GRAMSHAW, H., M.R.C.S.E., has been appointed Medical Officer for the Maulden District of the Ampthill Union, Bedfordshire, vice M. F. Evershed, M.R.C.S.E., resigned.

GRAMSHAW, J. H., M.D., has been appointed Medical Officer for the Gravesend District of the Gravesend and Milton Union.

HALLIWELL, R. N., M.R.C.S.E., has been appointed Medical Officer to the Workhouse of the Dewsbury Union, Yorkshire, vice J. Whitworth, M.D., deceased.

HIGGENS, C., M.R.C.S.E., has been appointed an Assistant-Surgeon to the Central London Ophthalmic Hospital, Gray's-inn-road, vice E. C. Hulme, F.R.C.S.E., resigned.

HORSFALL, J. S., L.K.Q.C.P.I., has been appointed Medical Officer for the Sowerby District of the Halifax Union, Yorkshire, vice T. H. Turney, M.R.C.S.E., resigned.

LYLE, W. V., M.D., has been appointed Medical Officer for the Western District of the Parish of Paddington.

MEEK, W. S., M.R.C.S.E., has been appointed Medical Officer for the Chesswardine District of the Drayton Union, Salop, vice W. E. Clendinnen, L.R.C.S.Ed., resigned.

OGSTON, A., M.D., Ophthalmic Surgeon to the Royal Infirmary, Aberdeen, has been appointed Surgeon also, vice W. Keith, M.D., resigned, and appointed Consulting Surgeon.

OWEN, Mr. A., has been appointed Medical Officer for the Shebbear District of the Torrington Union, Devon, vice G. G. A. Sutcliffe, L.R.C.P.Ed., resigned.

ROBINSON, J., L.R.C.P.Ed., L.R.C.S., of Ulverston, has been appointed Certifying Factory Surgeon to the Ulverston District, vice John Cranke, M.R.C.S., resigned.

SEMPLE, C. E. A., B.A., L.S.A., has been appointed Medical Clinical Assistant at the London Hospital.

WHITHAM, T. T., M.B., M.R.C.P.L., has been appointed Visiting Physician to the Infirmary for Consumption and Diseases of the Chest, Margaret-street, Cavendish-square.

Births, Marriages, and Deaths.

BIRTHS.

BRISTOWE.—On the 30th ult., at Old Burlington-street, the wife of J. S. Bristowe, M.D., of a daughter.

BROWN.—On the 3rd inst., at Bartholomew-road, N.W., the wife of Andrew Brown, L.R.C.P.Ed., L.R.C.S.Ed., of a daughter.

CHARLTON.—On the 18th ult., at Southborough, Tunbridge Wells, the wife of A. Charlton, M.R.C.S.E., of a daughter.

CONSTANT.—On the 19th of June, at Umballa, the wife of F. G. Constant, M.D., 12th Bengal Cavalry, of a son.

FORSYTH.—On the 23rd ult., at Eyemouth, the wife of J. Forsyth, M.D., of a son.

JENNER.—On the 25th ult., at Baldock, the wife of W. Jenner, M.R.C.S.E., of a son.

MARSH.—On the 2nd inst., at Newark, the wife of J. Marsh, M.R.C.S.E., of a daughter.

MILLER.—On the 18th of June, at Mussoorie, East Indies, the wife of Staff Surgeon C. M. M. Miller, of a son.

WAHLTUCH.—On the 1st inst., at Oxford-street, Manchester, the wife of Adolphe Wahltuch, M.D., of a son.

MARRIAGES.

CONSTABLE—CECIL.—On the 28th ult., at the Church of the Assumption, Torquay, Joseph J. Caffey Constable, M.D., of St. George's-road, London, to Elizabeth, only daughter of the late George Cecil, Esq., of Bristol.—No Cards.

REDMAYNE—HYATT.—On the 26th ult., John Redmayne, M.R.C.S.E., of Bolton, Lancashire, to Sarah Fielden, eldest daughter of Edward Hyatt, Esq., of Castle Donington, Leicestershire.

DEATHS.

GOLDIE.—On the 26th ult., at York-place, Edinburgh, Dr. Alex. Goldie, of New Abbey, Dumfriesshire.

LAMB.—On the 25th ult., Arthur Lamb, M.R.C.S.E., of Hampstead-Norris, Berks, aged 64.

O'BEYEN.—On the 26th ult. (suddenly, of disease of the heart), at Thistle-grove, South Kensington, John Roche O'Bryen, M.D., aged 58.

ROBINSON.—On the 23rd ult., J. Chadwick Robinson, M.R.C.S.E., of Syston, Leicestershire, aged 65.

WILLISFORD.—On the 25th of May, at Colombo, Ceylon, Wm. Willisford, M.D., aged 53.

WILKIE.—On the 23rd of May, at Nynee Tall, India, John Wilkie, late Superintending Surgeon, Meerut.

WILLIAMSON.—On the 9th ult., John Williamson, Surgeon, of Bedford, formerly of Sharnbrook, aged 81.

Medical Diary of the Week.

Monday, Aug. 8.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Wednesday, Aug. 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Aug. 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Aug. 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Aug. 13.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

SMALL-POX AT SWANSEA.

THE Report of Mr. E. Davies, medical officer of health for this town, on its mortality during the June quarter, exhibits an unsatisfactory state of things. In addition to the prevalence of scarlet fever, small-pox appears to have been committing ravages which are inexplicable on any supposition other than that the humane provisions of the Vaccination Act have been sadly neglected. Mr. Davies states that up to November last no death from small-pox had occurred in Swansea for four years, and this immunity, instead of strengthening the popular faith in the value of vaccination, seems to have had the effect rather of engendering neglect in that respect. The consequence has been an outbreak of great malignity, which in three months has caused 43 out of a total of 328 deaths. In 9 of these 43 fatal cases vaccination had been performed, in 5 this fact could not be ascertained by the medical officer, and the remaining 29 were unvaccinated. Mr. Davies remarks that as nine-tenths of the population are vaccinated, the proportion of fatal cases occurring among these is very small when compared with 29 deaths occurring in the section of the unvaccinated inhabitants. Swansea but adds another to the long list of illustrations of the selfish principle which underlies the opposition to the Vaccination Act. A small body of persons, presuming themselves to be wise, refuse protection themselves, without regard for the fact that they are thereby endangering the safety of a whole community.

A Subscriber.—Apply, through a Consul, to the office of the French or Prussian Minister, or to one of the Secretaries of the Medical Aid Relief Society.

HYDRATE OF CHLORAL IN HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—Allusion being made in your last number to a case of hydrophobia near Stockport, the treatment of which was essentially that indicated, and the case being under my care, I enclose notes of it.

Charles R——, aged twenty-seven, slight make, excitable temperament, a groom, was bitten by a large retriever dog (evidently rabid from the description given), in the middle of the night of June 16th, 1870. The wound was a lacerated one on the forehead; several small branches of the temporal artery were torn, and it bled profusely; bone laid bare; a fang of the lower jaw having been inserted in the left orbit, the upper one tearing the flesh of the forehead, so as to hang over, making it look a very ugly wound. It was very freely cauterised with nitrate of silver, and well brought together, a thick eschar coming away on the fourth day, and the wound healing well, but leaving a large wen. The cellular texture about the eye somewhat inflamed on the second and third day, but subsided under the use of saturine lotion. He continued his employ, and was in good health.

On July 16th, 1870, I was sent for, when he complained of aching limbs and suffused countenance, more especially of the eye and side that was bitten, but nothing incompatible with a bad cold; could drink, but evidently remembering the bite of the dog, and timid as to it. He had taken over night gruel and castor oil. He had now a pediluvium and a saline cathartic mixture. Was seen again in the evening; seemed no worse, but restless and excited, fearful that something was coming on. I ordered ten grains of Dover's powder at bedtime, and to continue medicine.

July 17th.—Seemed much better this morning. Pulse 80; tongue clean; temperature natural. He was up and walking about, having sweated freely in the night. He was under the impression that a good sweat would do him good, and he took a rapid walk to produce it. The patient now manifested disinclination to drink, and my impression is that he got his breath much better when in the open air, anything like a current or draught giving him a shudder. In the evening he was more obstinate as to taking his medicine, and was much excited. The suffusion of countenance had now given way to a peculiar excitement and wildness of expression. He had become wilful. I now gave him half a drachm of chloral hydrate.—10 P.M.: Had slept for an hour or two; complains of a constriction and pain in the throat, but nothing particular was to be seen on examination; bowels regular; secretions normal. He had eaten rice pudding, preserves, sucking lemon, &c., but would not take any fluids, and was fearful as to the night. Fifteen grains of Dover's powder was given him.

18th.—Had a restless night. He warned his wife that he had impulses to injure her; but now (8 A.M.) rather calmer; pulse 85; temperature natural; was up, and with difficulty kept in the house, feeling better when out of doors; would not lie down. Half-grain morphia pills were now given, he having refused to take the hydrate of chloral confection.—Afternoon: Pulse 100; perspiration profuse; temperature in axilla 105°; manner more excited; face pinched and drawn. When made to drink, rejects the water, after making repeated efforts to swallow it. Can suck strawberries and ice, but no nourishing food. He is evidently becoming exhausted, a tremulousness of the body now manifesting itself, with alarm as to the result of his malady, warning all to keep away, and was very rude.—6 P.M.: Pulse 105; temperature in axilla 108°; frenzy increasing. One grain of morphia was injected in the nape of the neck.—8 P.M.: No relief was obtained from the morphia. One drachm of chloral hydrate confection was given by compulsion.—10 P.M. No alleviation of symptoms. Two grains of morphia were injected. He had now with him three strong men, who were unable to control him.

19th.—2 A.M.: I was called up to assist the men, they being unable to quiet him. He was furious and frothing at the mouth, talking incessantly, but knew everyone about him. He was forced on the bed, and chloroform administered. Pulse 110; temperature in axilla 115°. The chloroform somewhat relieved him during the paroxysms. He sank rapidly, and died at 3.30 A.M. on July 19th.

This was evidently a pure case of hydrophobia. I cannot say that the chloral hydrate had any influence as to the termination of the case. A couple of hours' sleep the night before might be due to it.

Yours truly,

Bredbury, near Stockport, Aug. 1st, 1870. THOMAS SMITH.

CLARK'S WATER-SOFTENING PROCESS.

THE process of the late Dr. Clark for softening water is found to be effective also in greatly reducing its organic impurity. Thus the Grand Junction Company's water, after being submitted to the process by Dr. Frankland, had its hardness reduced from 17·6 to 3·6 degrees, and the organic matter was removed to the extent of about one-third. It appears that the patent for this process has expired, and that anybody can use it now that likes to do so. Seeing that the London Water Companies have us entirely at their mercy in the matter of water-supply, it would be only a gracious act if they were to determine henceforth to apply Clark's softening and purifying process to the whole of their respective supplies. If the Companies decline this spontaneous manifestation of regard for their customers, it may be worth while for the Home Secretary to remember this point in his promised legislation upon the recommendations of the Royal Commission on Water-supply.

T. C. S.—We refer our correspondent to his medical man for an answer to the various questions he puts to us.

A PROFESSIONAL SICK CLUB.

To the Editor of THE LANCET.

SIR,—Last year you made a very valuable suggestion in your editorial columns as to the formation of a Sick Club for medical men. Noting the idea as a most excellent one, I determined to work hard to put it into shape. The first question was to ascertain the premium to be paid annually, in order to insure, say, £1 per week during *total* disablement from sickness, accident, or lunacy. This question involved two others—firstly, whether existing statistics of the rate of sickness in Friendly Societies could be taken as a correct standard of the rate that might be anticipated in a Medical Sick Club; and, secondly, whether the sick allowance should be payable for the whole of life, or up to a certain age, or for a term of years only (cases of permanent disablement excepted). Simple as these questions appear, much labour was required before a satisfactory solution of them was attained. As to the first question, a careful comparison of Mr. Neison's tables of the sickness in Friendly Societies with that of the army and navy serving at home during the last ten years convinced me that Mr. Neison's researches were well-nigh perfect data for the estimation of the rate of sickness among males in England. The question as to the duration of the sick allowance was not so easily decided; for it is within the knowledge of all your readers that, as a rule, Sick Clubs make but poor provision for cases of protracted disease. The opinion of an eminent actuary and of several gentlemen well versed in the practice of insurance business was obtained on this point, and the result arrived at was, that it would be best to continue the full sick allowance for three years, and afterwards to continue a certain proportion of the allowance in cases of permanent *total* disablement. It was also strongly recommended that the premiums for sickness should include payment for an annuity to commence at any age after sixty that may be agreed on. This would greatly lessen the premiums for a sick allowance, and the term of three years for a single illness would allow ample time for the average duration of most cases of totally disabling disease; but cases of permanent incapacity to work would be specially dealt with. The ratio of permanent to temporary disablement is already known.

The other important points to consider were the absolute necessity of a thorough medical examination of the insurants, their efficient supervision when sick to prevent possible imposture, and the need there would be to make an inflexible rule that the amount of the weekly sick allowance should not exceed one-third, say, of the average weekly earnings.

The next matter was to form a Company, with a small working capital, to carry out the scheme, and the Lion Insurance Company (Limited) was duly formed and registered to carry on sickness, accident, annuity, and life insurance in all its branches. The Company has a projected capital of £10,000, in 10,000 shares of £1 each (7*s.* 6*d.* paid up), with power to increase. The Company has not yet commenced business. A copy of the memorandum and articles of association may be obtained by forwarding eighteen stamps to Messrs. Paddison and Son, 57, Lincoln's-inn-fields, Solicitors to the Company. A prospectus will shortly be issued.

Many of your readers will not need to be reminded how their practices have fallen away when they have been in ill-health, and all will acknowledge that the mental anxiety consequent on straitened means aggravates disease of every type. To insure that, in every case of disablement, the policyholder will have something to fall back on, some weekly allowance which will help to pay a *locum tenens*, to provide comforts otherwise unattainable, to support his family, or even to prevent the recipient from falling into poverty, is the primary object of the Company; and it also undertakes to provide for old age, and to contribute to the support of those permanently incapacitated from work. It will not be limited to the medical profession.

I may venture to hope that the Lion Insurance Company, having been founded to carry out these views, may prove worthy the support of that large class of professional men whose income is dependent on their health; and I trust you will permit me, through the medium of your columns, to thank the numerous correspondents who have so highly approved the plan.

Your obedient servant,
E. BEVERLEY BOGG, M.D.,
Medical Officer to the Company.

Finborough-road, S.W., July 26th, 1870.

W. J. B.—If the deafness were only slight, it would probably not be a bar; but all depends, of course, upon its extent. Candidates for the public service have to pass a physical examination as to their fitness for it.

WILL *Mr. Park* (Sheerness) be good enough to repeat his question, his former note having been mislaid.

CANADA BALSAM AND ASHANTEE BARK.

To the Editor of THE LANCET.

SIR,—In Dr. H. Jones's very interesting paper on "Cirrhosis of the Lungs," he speaks of prescribing Canada balsam in pills. Will Dr. Jones be so very kind as to say, exactly, how this balsam can be made into pills? Also what is Ashantee-bark, and in what form or how is it best given?

Yours truly,
August, 1870 IGNORAMUS.

LEGAL DIFFICULTIES OF TURKISH OPERATING SURGEONS.

It would appear that in Turkey no military surgeon is allowed to perform an operation without the permission of the commanding officer. In virtue of this law, two military medical officers have just been sentenced to imprisonment—one (the physician), for one year and a half; the other (the surgeon), for two years. The case was this: A soldier had had the end of one finger crushed, and it was found necessary to remove the last phalanx. The man died of tetanus a few hours after the operation, and, therefore, the above-mentioned punishment was inflicted. It was strongly urged that the operation had nothing to do with the tetanic complication, which latter was the result of the crushing of the finger; but the plea was of no avail. These facts are mentioned by M. Garnier in the foreign review of *L'Union Médicale* (July 28th, 1870); and we may add that, in the same article, M. Garnier gives a biographical sketch of the three eminent British medical men who have just departed this life—Sir James Clark, Mr. Syme, and Dr. Copland,—which sketch is as remarkable for accuracy as for courteous recognition of the merits of these distinguished members of our profession.

Ignoramus.—Apply to the clerk of the union at the cost of which the removal to the asylum was made. He is bound to pay.

THE ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—The letter of your correspondent who signs himself "An Old Crimean Surgeon," and which is in favour of the regimental medical system, does not contain anything either new or valuable in support of that system. It is the old, old story of sentiment. Your correspondent talks about "social ostracism." Now, Sir, when I was at Netley, where large numbers of staff medical officers are stationed, I, in common with the others, invariably received invitations to all the balls, &c., not only in Southampton, but from various parts of Hampshire, and I never heard anybody complain of being "nobody's friend." If a medical officer does not enter into society, it is his own fault, and, moreover, it is a private matter with which the Government has nothing to do.

Your correspondent then proceeds to state that a soldier "fights better when his own doctor is with him." The absurdity of this statement is too apparent to require comment; but I may mention incidentally that among the bravest soldiers of Europe are those who have not their "own doctors." I allude to the Prussians, among whom such a thing as a regimental medical system is unknown. In the Prussian army the general staff system is found to work admirably.

Your correspondent then proceeds to state that "the project of giving the same title to the medical student of yesterday as the man whose services *may* include nearly as many years as the other's age, is unpopular, even with many of the class whom it is supposed to benefit." This assertion I deny; and, moreover, if it is absurd to call a doubly qualified medical officer a *surgeon*, it is galling and humiliating to call an officer of thirteen years' service an *assistant*. That the prefix of "assistant" is distasteful to all men of four or five years' service and upwards cannot be denied.

Your correspondent quotes considerably from Mr. Henneu, and proceeds to state that that gentleman was in favour of "subordination" in military hospitals. I am not aware that anyone ever disputed that principle; but when he quotes from the same author that the "rashness of inexperience and the crudeness of theory are restrained by the gradation of rank and authority," it must be remembered that medical officers did not enter the army then, as now, doubly qualified, and by *competitive examination*. In Mr. Henneu's time there was no course of training at Netley, and no examination at the close of the session. So much for what your correspondent calls "the medical student of yesterday."

We need not be surprised at the opposition which is offered to the general staff system from a certain class, when we reflect that every reform, however much it may be needed, still meets with a certain amount of stupid opposition. There is a "no progress" party in every department; but happily it is getting "small by degrees," and it is to be hoped will become "beautifully less."

In conclusion, I may remark that the ideas of "An Old Crimean Surgeon" (if he really be such) are evidently in keeping with those by-gone days of shortsightedness and bungling.

Yours truly,
July, 1870. G.

Veritas.—The title of Surgeon or Physician-Accoucheur may be assumed by our correspondent, irrespective of the unwarrantable assumption of either by non-registered practitioners.

Mr. Tempest Anderson is thanked for his communication.

TOWNLEY'S ANODYNE MIXTURE IN PARTURITION.

To the Editor of THE LANCET.

SIR,—I have employed this anodyne in over fifty cases, and beg to offer my report.

Dr. Townley says in his pamphlet: "It is requisite the patient be carefully watched, so that the moment for administering the agent may be seized." This has been my special study, and I am now able to estimate the time the inhalation should be resumed—i. e., a few seconds before the arrival of the next pain, and if this is adopted success to a great extent follows; but I find it requires many more than six or eight inspirations to obtain the necessary relief. Some time ago I called on Dr. Townley on the subject of his anodyne. He received me most courteously, gave me some practical hints, and showed me his inhaler, in the cavity of which was a pyramidal bottle, containing about twelve drachms of the anodyne, and on examination it was precisely the same as mine, prepared from his recipe.

I am at a loss to know how the process can be called a complete failure, as in every case I have been able to afford the patient considerable relief. Originally I used an ordinary inhaler; but since I have had Townley's, I employ the anodyne with much greater confidence in more powerful doses, and with very marked success. The thanks of the patients are a sufficient answer to the question, and I do not hesitate to pronounce the anodyne a great boon to parturient women.

Yours obediently,
Stoke Newington-road, August, 1870. CHAS. WELCH.

SOCIETY FOR THE MEDICAL INSTRUCTION OF WOMEN IN PARIS.

AN Association for carrying out this object has just been founded in Paris under the patronage of the Empress. The design is to organise a school unconnected with Government, and perfectly unshackled, by means of donations of at least £10, or subscriptions of 16s. a year. In the number of the *Gazette des Hôpitaux* for July 26th, 1870, the rules touching lectures, hospital practice, &c., are to be found. Diplomas are granted after proper examinations. Pupils may place themselves under collegiate discipline, or attend free of such restraint. They will have the advantage of tuition in the Turkish and Arabic languages, so as to be able to practise in countries where these languages are spoken, and every care is taken for their comfort and the efficient learning of their profession.

M. W.—The percentage should be paid on all the Clubs. Our correspondent has secured these appointments in virtue of the introduction given. At least this is the presumption to be acted on.

VACCINATION FROM THE HEIFER.

To the Editor of THE LANCET.

SIR,—I send a short letter on animal vaccination that I have previously addressed to Dr. Seaton. Will you please give it insertion.

Yours respectfully,

Friday-bridge, Birmingham, Aug. 2nd, 1870. JOHN GREENE.

Friday-bridge, Birmingham, Aug. 2nd, 1870.

DEAR SIR,—I wish to offer myself as another witness as to the practicability of animal vaccination, avoiding for the present other considerations pertaining to the subject.

I have now inoculated twenty heifers with transmitted spontaneous cow-pox, and distributed a large quantity of lymph upon points, which, on the whole, has been used successfully; and latterly, from increased experience and improvement in detail, this success has been invariable in every case from which I have received a report.

In my own practice no single puncture or scratch has failed, whether operated from points or from the heifer to the arm, and the effect has been uniformly excellent.

The management of the heifer is of importance, and in this respect I believe I am able to suggest some improvements on the method adopted at Paris and Brussels.

In the first place, whenever it is possible, those heifers should be selected which, being intended for rearing, have been already partly or wholly weaned from the mother.

In the next place, they should not be either muzzled or tied up. This prevents them taking food or drink at pleasure, and from defending themselves against flies. A small cradle round the neck effectually prevents them from reaching as far as the place inoculated to lick it, whilst they can reach other parts. For food, barley-meal with milk twice a day, a little barley-meal and bruised oats once daily, hay or green stuff, with water constantly in the pen. In this way the heifers never suffer from diarrhœa, which is constantly the case on the continent. They chew the cud, and are content.

I will here express my great admiration of the Government organisation for animal vaccination and supply of lymph in Brussels, under the direction of Dr. Warlomont. The greatest opponent of this new method needs only a visit to that establishment to become, if not a convert, at least no longer an opponent.

I am, Sir, yours respectfully,

Dr. Seaton. JOHN GREENE.

Old Subscriber.—The step seems decidedly irregular. Is it true that by the payment of a certain fee to an American Consul, the degree of M.D. can be obtained from American schools?

Mr. W. McCallum.—We do not think our correspondent will have much chance of getting an appointment as medical assistant or dispenser in the French army. We are unable to give private answers.

CHINESE MOTHERS AND INFANTS.

To the Editor of THE LANCET.

SIR,—In your impression of the 23rd July, some extracts were given from Dr. Dudgeon's late Report on the Peking Hospital. One or two of the statements are calculated to mislead, and will be especially liable to cause disquiet in the minds of young mothers, and expectant mothers, many of whom go out to China every year. Dr. Dudgeon is reported as saying that the milk of a Chinawoman is "deficient both in quantity and quality when she is fed entirely on native food;" and, further, that "the children are, as a rule, insufficiently nourished, and consequently stunted and small for their age." If correct, this would be very disagreeable news to those who have had children born and reared in China; but the statements are contrary to my own personal experience. During a lengthened residence in China, I saw much of the native women employed as wet-nurses in the houses of British merchants. Nearly all of those women had large quantities of good milk, some of them, in fact, being perfect cows for lactation. They were fed very much in their own style, chiefly on rice and vegetables; any modification of their diet usually causing derangement of the system. Barley-water was occasionally given to promote the secretion of milk; and the only things really prohibited were garlick and onions, of which most Chinawomen are inordinately fond. In no case did I find that the British-born children so nourished became "stunted and small," which would have been the natural result had Dr. Dudgeon's remarks been correct. They were rather the reverse than otherwise. I have invariably found that a Chinese wet-nurse was the best substitute for the actual mother, and that children brought up in this way were larger, stronger, and healthier than those fed by the bottle. Of course there are women in China whose milk is neither rich nor copious, just as there are women here who are unable to nourish their own offspring; but I should say that such cases were relatively more numerous in this country than in China. I believe that Dr. Dudgeon is correct when he mentions the Chinese belief in the rejuvenating properties of a young woman's milk. The idea is as old as the time of the Jewish King David, and it prevails in the East, not without reason, to the present day.

Yours faithfully,

July, 1870. A RESIDENT IN CHINA.

SWIMMING-BATHS FOR LONDON.

PROFESSOR FRANKLAND, in his Report to the Registrar-General on the Quality of the Metropolitan Water-supply in the month of July, adverting to the need of swimming-baths for both sexes in London, calls attention to the good quality for bathing purposes of Thames water after it has undergone filtration through sand. He says:—

"The river current would afford power for effecting this filtration, and public floating baths established on the Thames, through which a constant current of filtered water was made to pass, would be much superior, both as regards convenience and purity of water, to the best bathing attainable in the Serpentine. There is now no reason why swimming schools for both sexes should not be established on the Thames similar to those which exist in all the chief cities of Europe."

We have public companies for all sorts of purposes, good, bad, and indifferent. Will no enterprising capitalists take up Dr. Frankland's idea, and give it effect?

R. H. O., (Balham.)—The following are the standard books on the subject: 1st, that by Professor Stokes, of Dublin, justly regarded as a model of medical exposition; and secondly, that by Dr. Austin Flint, of Philadelphia, the newest and most comprehensive treatise.

THE INDIAN MEDICAL SERVICE AND THE FURLOUGH RULES.

To the Editor of THE LANCET.

SIR,—All medical officers must feel grateful to THE LANCET for exposing the shameless manner in which the service is treated with regard to the new Furlough Rules. But unless the press continue to notice the matter, we cannot hope for redress. The fact that medical officers, and medical officers only, have been debarred from the principal advantages of the new leave rules—viz., retention of appointment and the right to 50 per cent. of salary when on furlough—should be continuously reiterated. Every other military officer has the right to go home every three years, to receive half his salary while absent, and to return to his appointment at pleasure. The medical officer is selected from the whole army as the man who shall not participate in such advantages. Simply, an after order of the Government of India says, medical officers shall not participate in the advantages of the new Furlough Rules, and the injustice is inflicted without the shadow of an excuse. It is no favour we ask, but simply the application of the Furlough Rules of 1868, as published by the Secretary of State.

I am, Sir, yours faithfully,

India, June, 1870. VERITAS.

Justitia misapprehends the use to which the medical certificate is applied. There is nothing to prevent an unqualified person from giving information to the registrar as to the cause of death; but the registrar is instructed in such case to record it in his book as "not certified." For the purpose of burial it is not a medical certificate of the *cause* of death which is required, but merely the registrar's certificate of the *fact* that he has registered the death. This is a distinction which ought to be more generally understood than it evidently is.

ANOTHER TESTIMONIAL TO DR. THORNTON.

THE following circular has been sent to us, with the request to give it publicity for the benefit of old Epsomians:—

July 30th, 1870.

DEAR SIR,—You have no doubt been informed of the resignation by Dr. Thornton of the post of Head Master of Epsom College.

On the occasion of his leaving, several old boys have desired to present him with a testimonial as an expression of the high esteem in which he is held by all past Epsom pupils, and by all who have known him in the position which he has held from the opening of the school.

Should you wish to further the object in view, any of the undersigned, whose names are marked with an asterisk, will be happy to receive your subscriptions and those of your friends; and it is particularly requested that an early answer may be given to the above, in order that an idea may be formed of the amount likely to be subscribed, and subsequently a date fixed for a large general meeting, at which the form of the testimonial may be decided upon.

*W. W. WAGSTAFFE, 122, Kennington-road, S.E.
*H. MORRIS, 13, Keppel-street, Russell-square, W.C.
H. CHALDECOTT, Dorking.
*J. F. GOODHART, 24, Montpelier-crescent, Brighton.
G. BROWNING, 2, Copthall-chambers, Throgmorton-street, E.C.
F. J. WOODHOUSE, Hertford.
*F. TAYLOR, 59, Stanhope-street, Strand.
C. C. ELCUM, Cheltenham.
E. YATE, Godalming.
*J. F. WRIGHT, 53, Seymour-street, Portman-square, W.
J. L. LOWE, King's College.

M.R.C.S.—Let our correspondent try what immersion of the parts in a solution of alum will do, or the application of a solution of carbolic acid, of course weak enough to prevent injury. We have heard that the local application of iodine ointment is useful in such cases.

TREATMENT OF SCARLATINA.

To the Editor of THE LANCET.

SIR,—I observe from THE LANCET of July 23rd that you have noticed my communication to you in regard to the treatment of scarlatina. I beg to express my regret for having misled you as to the number of deaths I had. You say that of 160 cases, only one failed to recover. Now what I meant to say was, that only one died from sequelæ. I had in all, as I now see from my books, 14 deaths; but of these, one was dead, and two just dying, on my arrival. Duration of the disease in the three cases, from twelve to twenty-four hours.

Yours, &c.,

Broughty Ferry, July 25th, 1870. J. ANDERSON.

P.S.—I may mention that since I wrote you last, a patient of mine has died from bronchitis following scarlatina.

CREMATION.

THE *Gazette Hebdomadaire* of Paris has lately been publishing remarks on the propriety of burning the bodies of the slain after great battles, or burying them in quick lime. There exists among the people at large a certain repugnance to cremation—the act of reducing human frames to ashes; but after destructive conflicts it may prove useful, especially if the troops remain in the vicinity of the field of battle. It is, on the other hand, a comfort to know that the military do not read medical papers, as they might be anything but pleased in noting that scientific men are already discussing how the bodies of the killed shall be disposed of.

Stetho.—Application should be made to the Director-General of the Naval Medical Service.

CROWNER'S QUEST LAW.

To the Editor of THE LANCET.

SIR,—I wish to call attention to the value of a coroner's inquiry, as exemplified in the following case.

I was sent for to see an infant on the morning of the 22nd instant, at 2.20 A.M. I found the child had died from suffocation. The body was still warm, and I used every means to restore it, but ineffectually. The coroner's officer called on me the same morning, and I told him I should not give a certificate, as it would be necessary to have an inquest. The inquest was held the same evening. I was not summoned, and no medical man was present. The verdict of the jury, according to the coroner's direction, was—"Cause of death, natural; convulsion fit on dentition." I have copied the above verdict from the registrar's book of entries of deaths. There was not the slightest symptom to authorise this verdict, either from the appearance of the body or the history of the case, and, under the circumstances, such cause of death would be impossible.

I am, Sir, your obedient servant,

J. BROWN, L.K.Q.C.P., &c.

Napier-terrace, Lower Wandsworth-road, July 23rd, 1870.

*** In such cases as the above it would be proper for the medical man to memorialise the Home Secretary, and, if possible, to get his memorial presented by a member of the House of Commons. It is not likely that any immediate effect would be produced; but the instances are common, and a succession of clear memorials on the subject would certainly lead to a better administration of the law. Our correspondent would probably find that the mother or next friend of the deceased told the jury her version of what the doctor said, and that their acceptance of this version as the basis of a verdict saved them the trouble of an adjournment for medical evidence. Such carelessness is lamentably common, and may often lead to serious miscarriage of justice. The matter well deserves attention.—ED. L.

Mr. R. P. Gibson, (Laleston, Glamorganshire.)—We are inundated with cuttings from the provincial press, embodying local puffs, "advertisements," and similar unprofessional devices of the irregular (and sometimes, we are sorry to say, the regular) practitioner. It is not for us to expose such practices in the case of men who are not registered. In the case of those who are, it would be well if the neighbouring members of the profession who have its dignity at heart would combine, and publicly "make an example" of the offender.

Gibraltar.—The lines are good; but we regret that they are unsuitable for our columns.

SANITARY COMMISSION OF INDIA.

To the Editor of THE LANCET.

SIR,—Observing some correspondence respecting the Sanitary Commission of India, I cannot refrain from making a few remarks.

There can be no two opinions as to the necessity of paying attention to sanitary matters, and everyone must admit the advantages all India has derived from it; but the mischief of it is that it should be grasped at for private interest, to the destruction of the service, and at the expense of the public money. For instance, there is a full staff of officers, quite capable of attending to, and reporting on, all sanitary subjects, and do so; but men in power must have their own officer entirely under their control—a person junior in the service. He is, therefore, constantly brought into collision with his senior officer, on whom the duty properly devolves.

The Deputy Inspectors-General of Hospitals require but a small addition to their establishment, and encouragement from the Government, to carry out all such views in a vastly superior manner to the present system.

Yours, &c.,

August, 1870. B. M. S.

T. J., M.D.—A man holding a surgical qualification only could not recover for attendance in a medical case, notwithstanding the circumstances described. The partnership could not avail, for it was a secret matter. At any rate it was not announced in the ordinary ways, and the services rendered seem to have been given only by the holder of the single qualification.

MEDICAL ASSISTANTS.

To the Editor of THE LANCET.

SIR,—May I ask, through the medium of your valuable columns, on behalf of a very large and useful body of men, called unqualified assistants (many of whom have seen a great deal of practice, and from no fault of their own have not been able to finish their hospital curriculum), whether the Medical Council intend extending towards them any facility for the amelioration of their position, or, as I understand, to entirely do away with them, and so prevent their earning for themselves, and in some cases their wives and families, the wherewith to obtain a living. I would suggest that meetings should be held in London, Liverpool, and other large towns, to probe the opinions of principals and assistants, and to consider the best means of petitioning to give to the deserving (which might be tested by reference to employers or examination) some certificate of qualification. There are many who simply from want of funds are unable to qualify.—Yours, &c.,

July 26th, 1870. ERRS.

A Young Practitioner.—A coroner has a right to employ any medical man that he pleases to make a post-mortem examination and give evidence. The fee for this is fixed by Act of Parliament at two guineas; and the Act does not contemplate, nor would magistrates allow, that two practitioners should be employed, and two fees paid. No medical man has any legal claim on the coroner for a fee, unless summoned to give evidence by a written document served by the proper officer. If our correspondent had any claim at all, it would be on the actual medical witness who asked for his assistance. There is no "professional etiquette," that we know of, as between a coroner and a practitioner who assisted one of the witnesses in his court; and although gentlemen usually answer letters, yet their multiplication of late years affords busy professional men many excuses for neglecting them.

THE PRELIMINARY EXAMINATION AT THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—I have a complaint to make of my treatment at the recent preliminary examination for the membership of the Royal College of Surgeons, which I am sure you will consider a valid one. I beg that you will consent to insert a few words on my behalf, as I fear I should have nothing to hope from an appeal to the examiners.

It is customary on all examination-papers where questions are printed on the *reverse*, to place at the bottom of the first page the letters P.T.O., or something equivalent to them. This was the more necessary in this case, because, of all the papers set us, *only one* (the Algebra) was printed on both sides. I could have done the equations on the other side had I noticed them, and this might possibly have altered the result of the examination. Is it fair that I should suffer by this oversight? Yours, &c.,

August, 1870. X.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. F. C. Skey; Dr. Andrew Clark; Mr. Soelberg Wells; Dr. Sansom; Surgeon-Major Wyatt; Mr. May; Mr. Fox; Mr. Woodward; Mr. Gravelle, Abergele; Mr. Goschen; Dr. Steggall; Mr. Peck; Mr. Holland; Mr. Simpson; Mr. Oakes, Birmingham; Dr. Rickey; Mr. D. James; Mr. Rooper, Plymouth; Mr. Chapman; Dr. Hunter; Mr. Morris, Darlington; Mr. Hovell; Dr. Grant; Dr. Brown, Mountain Ash; Mr. Holmes; Mr. Hull; Mr. Procter, Shifnal; Mr. Wigg, Southminster; Mr. Remy; Dr. Robinson, Soutergate; Dr. Page, Newcastle; Mr. Ford; Dr. St. Clair, Islay; Dr. Bruce; Dr. Eade; Mr. Hewett; Dr. Speedy, Netley; Dr. Jeaffreson, Framlingham; Dr. Anderson, York; Mr. Haycock; Dr. Coutts; Dr. Pilkington; Dr. Welsh; Mr. Streatfeild; Mr. Times; Mr. Croker; Mr. Arrowsmith; Mr. Fairlie Clarke; Dr. Davey, Northwoods; Mr. McCallum; Dr. Keith, Edinburgh; Dr. Badge, Cardiff; Dr. Constable; Mr. Gover; Dr. Grosvenor; Mr. R. Merry; Mr. B. O'Beirne, Brompton; Mr. Reid; Mr. March; Mr. Marshall; Mr. Godfrey; Mr. Eames; Mr. Anderson, Broughty Ferry; Mr. Walford; Dr. Scott; Mr. Harrison, Liverpool; Mr. Rusk; Mr. White; Mr. Hunter; Mr. Wyld; Mr. Watson; Mr. Wood; Mr. W. Jones; Dr. Oliver, Redcar; Dr. Lowndes; Dr. Drysdale, Folkestone; Dr. Ling, Saxmundham; Dr. Penwick; Mr. Smith, Nevilston; Dr. Dalby; Dr. Jaap, Sheerness; Mr. Aston; Mr. Travers; Mr. Spencer; Mr. Grace, Truro; Mr. T. Smith, Bradbury; Mr. Milson; Mr. Stevenson, Town Malling; Mr. Redmayne, Matlock Bath; Dr. Craven; Mr. Hine, Swineshead; Mr. H. Green; Mr. Rogers; Mr. Thomas; Dr. Mackintosh, Callington; Mr. Brigg; Mr. Duggan; Dr. Roberts, Festiniog; Mr. Stride; Mr. J. Marsh, Norwich; Mr. M. Macrae; Dr. Tylecote, Great Haywood; Dr. Hitchman, Liverpool; Dr. Monckton, Rugeley; Mr. Heaton, Leeds; Mr. Jenkinson; Mr. North; Mr. Moody; Mr. Cheyne; Mr. Harvey, Bunchurch; Dr. Gourley, West Hartlepool; Mr. Fry; Mr. Gibson, Laleston; Mr. Park, Sheerness; Mr. Rogers; Mr. Haviland; Dr. Wahltuch, Manchester; Mr. Reeves; B. A.; Medicus; M.D.; Veritas; Stetho; T. J., M.D.; A Country Cousin; R. H. O.; A Young Practitioner; Beta; Q.; I. O. U.; Ignoramus; An Old Subscriber; Gibraltar; Mater; E. G.; W. J. B.; G. T.; T. C. S.; Justitia; X.; &c. &c.

West Middlesex Advertiser, Brighton Gazette, Edinburgh Evening Courant, Archives Générales de Médecine, Bermondsey Advertiser, Technologist, City Press, Kelso Chronicle, Aberdeen Free Press, Nashville Journal, Brighton Guardian, Durham County Advertiser, Hornet, Cardiff Times, Croydon Chronicle, Nottingham Daily Guardian, South Durham Herald, New York Medical Gazette, Lincolnshire Chronicle, Scotsman, Spiritualist, Bucks Herald, Pharmaceutical Journal, Welshman, and *North Wales Chronicle* have been received.

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